

1981

# Viewing habits and preferences of central Iowa farm operators for televised agricultural information programs

Said Abdel-Fattah Mohamed Nomeir  
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VIEWING HABITS AND PREFERENCES OF CENTRAL IOWA FARM  
OPERATORS FOR TELEVISED AGRICULTURAL INFORMATION  
PROGRAMS

*Iowa State University*

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**Viewing habits and preferences of central Iowa farm operators  
for televised agricultural information programs**

**by**

**Said Abdel-Fattah Mohamed Nomeir**

**A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of the  
Requirements for the Degree of  
DOCTOR OF PHILOSOPHY**

**Major: Agricultural Education**

**Approved:**

Signature was redacted for privacy.

**In Charge of Major Work/**

Signature was redacted for privacy.

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## CHAPTER I. INTRODUCTION

According to a 1979 Nielsen Report on TV (73), 98 percent of the households in the United States have at least one TV set. In addition, 48 percent of the households have two or more sets and 81 percent are households with color TV. In other words, virtually every rural and urban American has access to TV and the majority of them watch commercial rather than public television (educational TV).

Examining the audience of educational television (ETV), which airs the most agricultural information type programs, is not an easy task. There are no audience ratings for ETV; that is, nothing comparable to the Nielsen, Pulse, Trendex, Hooper, American Research Bureau, and Arbitron that are mainly used to rate commercial TV. There are no interviewers who call a list of numbers every quarter-hour to inquire about ETV, no diaries are kept regularly, and no recording audiometers are placed in receiving sets to determine ETV audiences. The lack of regularly collected data on ETV viewing is due primarily to ETV having no advertisers and hence no one to pay the rather large cost involved in collecting audience figures. Additionally, collection of such data would be difficult and expensive because educational stations are widely scattered throughout the country and because their total audience is relatively small compared with the audience which views commercial programs (92).

Televised Agricultural Information Programs (TAIP) are noncredit formal educational programs. These agricultural programs sell nothing and are not generally designed for passive viewing by their audience,

nor for the purposes of relaxation or entertainment. Rather, these programs are designed for active learning in order to disseminate new ideas and information concerning agricultural concepts.

The first extension telecast program was broadcast by WGY (WRGB) in Schenectady, New York, on March 24, 1943. On that date Robert Child, Farm Director, and Arthur Pratt, Extension Vegetable Crops Specialist of Cornell University, made extension's initial TV presentation (89). The first Land-Grant University TV station in the United States was WOI-TV, owned and operated by Iowa State University, Ames, Iowa, where it began telecasting a regular schedule of programs to central Iowa at 6:30 P.M. on February 21, 1950 (89).

The Iowa Extension Service has been using television for thirty years. It seems appropriate to determine whether or not these televised agricultural information programs (TAIP) are reaching the farm audiences in the most effective way. The audience of these programs can be measured in two dimensions: "Reach" and "Frequency". Reach refers to the proportion of the whole farm population which receives the programs. Frequency refers to how often farmers tune in to television to receive specifically agricultural information (92).

The present study on the reach and frequency of TAIP provides meaningful data concerning the demographic and background information, viewing habits, preferences, and attitudes of farm operators living in central Iowa toward TAIP. This information could be of value to the agricultural program planner who must make logical and practical decisions in regard to the use of TV as a source of information for the various aspects of farm

operation. There is little question that television is reaching most farmers. The important question is whether it is providing only news and entertainment, or if it is also providing vital information about farm operation, management, and marketing.

### Statement of the Problem

Schramm (94) states:

People come to the media, as to other messages, seeking what they want, not what the media intends them to have.

The effectiveness of TV can be determined by studying the amount of watching, the kind of programming watched and preferred, and the beliefs about TV. Only when agricultural information provides the specific information that farmers believe they need will TV be an attractive tool in agricultural communication. One UNESCO report (106) lists the first two tasks of communication research as supplying basic data and general findings to policy makers and helping planners to elaborate on alternatives. Research on TV should provide data on how, when, and what to schedule, and to what degree present programs are filling the needs of farmers.

The present study was not designed to evaluate TAIP but rather to focus on the viewing habits and preferences of farm operators in central Iowa in relation to these programs. Specifically, the objectives of this investigation were to answer the following questions:

1. What are the demographic and background characteristics of farm operators in central Iowa that related to their viewing habits and preferences of TV?
2. How many TV sets do they have at home?

3. How familiar are they with the TAIP studied?
4. How often do they watch TAIP?
5. If they were aware that an agricultural information program was on one channel and a nonagricultural program or news broadcast was on another, which program would they most often choose to watch?
6. What are their reasons for watching TAIP?
7. What are their reasons for not watching such programs?
8. How do they feel about TV as a source of agricultural information?
9. How many hours in an average day do they spend watching TV during each specific season of the year?
10. How frequently would they prefer different types of agricultural information programs to be televised?
11. Which of the various time blocks are convenient for them to watch TAIP?
12. What types of information would they like to see presented on TAIP?
13. What changes do they feel are needed to improve TAIP?

#### Purpose of the Study

The study was done primarily to identify the viewing habits and preferences of farm operators living in central Iowa based on the viewership of four weekly televised agricultural information programs, TAIP, (Appendix A).

### Objectives of the Study

To achieve the proposed general purpose of this study a number of secondary objectives were established:

1. To identify the demographic and background characteristics of the farm operators that are related to the frequency of TV viewing habits and preferences.
2. To determine the viewership potential of farm operators.
3. To determine the viewership audience (size) for each of the four weekly TAIP studied.
4. To determine the viewership habits of the farm operators.
5. To determine the viewership preferences of the farm operators.
6. To determine the farm operators' feelings about TV as a source of agricultural information and new ideas in farming which they need to learn about and adopt.
7. To determine the reasons farm operators give for watching TAIP.
8. To determine why some farm operators don't watch TAIP.
9. To identify the major televised agricultural programs and technical facilities information about the four TV stations studied.

## CHAPTER II. REVIEW OF LITERATURE

The main functions of a review of literature are: 1) To determine what work, both theoretical and empirical, has been completed and reported previously; 2) To help delineate the problem areas; 3) To provide possible theoretical framework to interpret findings; and 4) To provide suggestions for measurement of the concepts.

Each of these functions is related to the various sections of this study, and although most of the literature that has been reviewed is presented in this chapter, other portions judged relevant will be cited in the appropriate sections. This procedure is similar to that used by Campbell in 1959, Blount in 1960, Powers in 1960, Johnson in 1962, Iverson in 1964, and Torres in 1980, (101b).

The literature selected to be cited in this review is divided into the following sections: 1) Farm Operators as Self-Directed Learners; 2) Research on TV Programs; 3) Viewing Habits and Preferences of Watching TV; 4) Frequency and Reasons for Watching TAIP; 5) Demographic and Background Data; and 6) Summary.

### Farm Operators as Self-Directed Learners

Farm operators as adults crave opportunities for learning that can exist outside the bureaucratic framework of traditional schools and institutions of higher education. Perhaps farmers have always taken part in a variety of learning situations, both formal and informal, and usually self-directed.



The purpose of this section will be not to outline what has been known about that body of knowledge but will provide a description of some of what is known about the self-directed learning theory. It is to be hoped that such a picture will set the stage for understanding the self-directed adult and for examining such a learner in terms of the main purpose of this study.

Knowles (56) states:

In its broadest meaning, self-directed learning describes a process in which individuals take the initiative, with or without help of others, in diagnosing their learning needs, formulating goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

This concept emerged in adult education, called variously autonomous learning, self-planned learning, inquiry method, independent learning, self-directed, and self-instruction. But the different labels are often mistakenly associated with the belief that learning is in isolation and the learner does all his/her activity on an entirely independent basis.

Tough (102) in his explanation of self-planned learning points out that different labels such as self-education, self-instruction, self-teaching, independent study, self-directed learning, and individual learning are somewhat similar to self-planned learning projects, but not identical. He agrees that even though the learner may obtain help from a variety of human and material resources, the key to being a self-planned learner is carrying on the responsibility for the detailed decisions and arrangements associated with the learning activities. Hiemstra (43) defines self-planned learning as "a learning activity that is self-directed,

self-initiated, and frequently carried out alone".

Knox (57) suggests that:

A self-directed learner is the person who continues his learning reflected in his selection of objectives that have high priority, followed by his selection from a range of learning activities that are most appropriate for the specific circumstances he confronts.

For self-directed learning he suggests the following resources: printed media, electronic media, informal groups, formal groups, and tutorial schedules.

Tough (102) found that the most common motivation for learning was application of particular knowledge or a skill. Usually the learners anticipated some outcome from their learning activities. Basically, adults conducted learning projects which were related to their occupations. Knowles (56) suggests that self-directed learners are motivated by internal incentives such as a need for self-esteem, a desire to achieve, and the satisfaction that will come from accomplishing something. Tough (102) suggests something similar in his list of reasons as to why self-planned learning is popular and why it is selected by certain individuals citing efficiency, confidence in individual ability, freedom to pursue learning at own pace, reliance on self as a resource, ability to find resources, insight into personal learning abilities, self-reliance and independence, and pride in individual accomplishment. He suggests that one of the reasons certain learners select self-planned learning as their approach is their ability to locate and utilize printed materials.

According to the self-directed learning theory and the purpose of this study, it may be concluded that a farm operator takes the initiative and accepts the responsibility, with or without the help of others, for diagnosing his learning needs, formulating goals, deciding to watch (or

not watch) one or all of televised agricultural information programs, and evaluating these programs to decide alone whether or not to continue watching them.

### Research on TV Programs

Research in broadcasting uses a wide range of methods or research techniques to study its four major concerns: the communicators—those who create programs and make policy decisions; the audience—those who watch and listen to the programs; the message—the program content; and the effects—the impact the programs have on their audiences (32).

One of the most widely used methods is survey research, most commonly used to study audiences. In survey research, the researcher takes a regional or national sample of the population she/he wishes to survey and then studies each member of the sample in an identical manner. Survey research is the technique used by most of the rating services, such as Nielsen, Arbitron, or Pulse, and by polling agencies, such as Gallup and Roper. As well as studying audience size and composition, survey researchers study viewer-listener attitudes toward TV and radio and audience preferences—what the audience wants to see or hear.

The most common research method used to study message is called content analysis. As the name implies, this research method is an objective method of analyzing the manifest content of the message. At its simplest level, content analysis involves counting the number of times that certain people, issues, or ideas appear in programming. At a more complicated level, it is used to analyze attitudes or editorial bias.

Another commonly used research technique in broadcasting is experimental research, which is mainly concerned with the effects of radio and TV on its audience. In experimental studies, researchers set up and manipulate the research circumstances rather than observe behavior or attitudes in a natural setting.

Survey research, content analysis, and experimental studies account for the great majority of studies that are conducted in broadcasting. However, these study methods are not the only techniques that have yielded important results. Some researchers have had success with other techniques such as panel studies—in which the same persons are measured on two or more occasions, and participant-observer studies in which the researcher observes what happens in the actual media operation.

When compared to research in the natural and physical sciences, broadcasting research, and indeed social science research in general, is still in its infancy. Broadcast researchers can neither place their subjects in a controlled laboratory setting nor can they count on their subjects to always act consistently. In addition, isolating the communication variables from the many other variables that bear on the viewer or listener is often an impossible task. Although the influence of mass communications raises serious questions, there are still very few answers about the effects of media exposure on people.

Research on TV programs need not be limited to measuring popularity or audience size. Instead, research can aid and has aided broadcasters in several ways in their planning and production of programs, in evaluating efforts, and in assessing of broad social impact. Research provides basic

data for decision making on policy program development, and promotion in regard to TV programming.

Dignam (28) states:

Research by itself does not produce programs. Nor does it tell producers how to produce program. It simply provides information which producers can utilize in the creative process of putting programs together.

TV audience studies, the focus of the present study, can be distinguished by the character of their sample and by their focus (92). In terms of the sample, there are two broad classes: a limited sample, confined to a community, a county, an area, a state, or a region; and a national sample. In terms of focus, there are three broad classes: 1) viewing studies, which are concerned with audience size; 2) attitude studies, which are concerned with attitudes toward the medium; and 3) preference studies, which are concerned with what the audience wants or would prefer to have.

The present study is based on a limited sample of farm operators living in six counties in central Iowa. It focuses on the viewership potential, size, habits, preferences, and attitudes of those farm operators toward TV as a source for agricultural information.

There are two different directions possible for the research strategy: to study or examine in detail the audience of one or more of a TV station's agricultural information programs; or to study, in somewhat less detail, the audience of agricultural information programs within an overlapping viewing area of several TV stations (comparative study). The latter strategy was followed in the present study.

Eiselein (32) states that research in the area of TV program development occurs in three stages:

1. Pre-Production. When background research or developmental research begins to aid the initial production planning, community research is often a part of this pre-production stage. In terms of communication theory, research during this stage should function as communication from the target audience or community to the production staff. In pre-production research, answers to the following questions are sought: What is the potential viewership?; What are current viewing patterns?; What general format would be best?; and What type of information should be carried?

2. Formulative Research. After the program is in production, research should provide feedback from the audience so that production can be modified to improve effectiveness. In this stage, research continues to ask a number of questions such as: Who is watching?; What is the viewers' response to the programs?; Why are people watching (or not watching) the programs?; and, What would they like to see on the programs?

3. Summative Research. Finally, through summative research one can evaluate how good the program was. It measures results and compares them with goals and objectives of offering those programs.

The present study was designed chiefly to find major answers for the questions related to the first two stages of pre-production and formulative research. The third stage, summative research, is recommended for further more detailed study.

### Viewing Habits and Preferences of Watching TV

Wozniak (120) reviewed an early study that WOI-TV, Ames, Iowa, made of its farm audience in October, 1954 and published in memorandum form. The memorandum stated that most central Iowa farmers had had their sets more than two years, and most of them viewed WOI-TV more than any other station. The majority of the farmers surveyed said they viewed WOI-TV mostly for farm programs. The memorandum indicated that about 64 percent of the sets were in use during an average evening hour; about 33 percent were in use during an average afternoon hour; and about 18 percent were in use during an average morning hour. According to the memorandum, the farmers responding to the surveys indicated that winter (November-March) was the best season in which to reach a farm audience, with most farmers getting up around 6:00 A.M. and going to bed at 10:00 P.M. Most of the farmers viewed TV during their meals (at 7:00 A.M., 12:00 noon, and 6:00 P.M.). The farmers surveyed said they depended on TV more than radio for information needed in farming.

Rogers (83) in his study found that influentials and farmers in Kansas said convenient TV periods were 6:30 to 7:30 A.M.; 12:00 to 12:30; and after 7:00 P.M. Morning and noon viewing peaks were higher for farmers than for influentials, and for younger than for older farmers. For TV, Sunday afternoon was nearly as convenient for farmers as the mid-week, noontime period. The author concludes that Extension Service should take advantage, when possible, of TV in the evenings and on Saturday and Sunday afternoon.

Wilson (117) found that Wisconsin rural families used TV primarily during the winter in the evening hours, with some use at noon. They were in contact with media less on Sunday than any other day, and less on Saturday than on weekdays. Peak TV hours were from 8:00 P.M. to 10:00 P.M. with about half the families watching.

Strand and others (101a) found that a sample of 449 farmers in Iowa usually viewed TV at noontime (12:00-1:00); evening (after 6:00 P.M.) on weekdays, and afternoons and evenings (after 1:00 and after 9:00) on Sundays.

Sloan (96) in his study of a weekly county extension TV program in Iowa, found over half of the 516 Coldwell County residents watched the programs at least once a month. Three out of five considered Friday a good day to have programs and half of them considered the noon hour a good time.

Gunlogson (41) mailed questionnaires to four thousand farmers in eight north central states and received 758 returns (about 19 percent). He found the amount of time spent watching TV each day of the week in descending order was: Saturday, Sunday, and Monday equal; Tuesday and Wednesday equal; and Thursday and Friday last.

Ross and Bastian (86) found mass media were available in most Wisconsin homes. Of time devoted to mass media, TV was first, radio second, and reading third. TV viewing was largely an evening activity with some time spent watching at noon.

Gauger (37) sent 200 questionnaires of which 152 were returned. Of these, 151 said TV was an effective way of getting new ideas, 153 said Tuesday night was a good time, and 142 thought eight o'clock in the



evening was a good hour.

Axinn (5) found that farmers listened to radio at the noon hour and watched TV during Sunday afternoon more than any other daytime hours.

The Extension Editorial Office at the University of Illinois (107) found that farmers tended to be at home during the noon hour more than nonfarmers. Sixty-nine percent reported that they watched the noontime TV program, while 31 percent said they listened to radio. The average percentage of noontime viewing of TV among farmers during the interview week by day of the week was Monday 40%, Tuesday 43%, Wednesday 43%, Thursday 40%, Friday 40%, and Saturday 19%.

Nielsen (74) found that in general the household use of TV (HUT) increases gradually through the day with a sharp increase after 5:00 P.M., peaks between 8:00 to 10:00 P.M., and drops sharply after 11:00 P.M. HUT is generally highest on Friday and lowest in July, with Sunday being the highest day of usage and Friday the lowest.

Hvistendahl (47) studied a sample of 575 residents of six counties around Mitchell, S. D. Farmers returned half-day diary forms on which they had indicated the stations to which their radio and TV sets were tuned during the morning and noon hour of Wednesday, Dec. 13, 1961. The data show that in contrast to the radio audience, the TV audience began to build up slowly from 7:00 A.M. continuing in almost straight-line progression until 10:00 A.M. From 10 A.M. until 11:45 A.M., the TV audience exceeded the radio audience, but it is noteworthy that this was the only time during the morning and noon hours when this was so. The TV audience reached its morning peak at about 11:00 A.M. and declined steadily from

that point until 1:00 P.M. when it jumped considerably to exceed radio again. It might be inferred that the radio audience increases at the expense of the TV audience during the noon hour.

Hvistendahl found also when radio and TV audience were combined, the quarter-hour beginning at 8:00 A.M. appeared to be most popular with rural listeners. The second most popular time was 12 noon. The popularity of the 8:00 A.M. hour, rather than an earlier hour which might be predicted for rural audience, may be due to the fact that the survey was taken in December when outside work was at a minimum. In other seasons, the peak time might be expected to be earlier than 8 A.M.

Kroupa, Burnett, and Meiller (60) in several recent studies found that the broadcast media were farmers' main sources of timely market news information. These studies showed that almost all farmers listened regularly to radio market reports while somewhat less than one-half watched TV market reports. Viewing of favored TV market reports was generally restricted to the noon hour when most farm programs were broadcast.

In summary, this section indicates that most farmers own TV sets, watching TV agricultural programs. Winter (November-March) is the best season in which to reach a farm audience. Generally, farmers preferred Sundays and Tuesdays to watch TAIP. They used TV primarily in the evening hours with some use at noon and in the mornings.

### Frequency and Reasons for Watching TAIP

According to an Iowa State University Cooperative Extension Service questionnaire (49), respondents said they did not view an entire half hour agricultural program because they were not interested (31%); they had other things to do (17%); others in the family wanted to see another program (1%); they lost interest in program (1%); or they were tired and dropped off to sleep (1%). They also rated the program as compared to most programs they watched on TV; 14 percent said the programs were much more interesting, 47 percent found them about average in interest, 15 percent found them less interesting, and 6 percent said they were frankly dull and uninteresting.

When they were asked "Is it worth the time and trouble for the extension service to use TV to present programs with an educational slant?", the answers were 44 percent definitely yes; 33 percent probably yes; 9 percent probably not; and 1 percent definitely not.

Robinson (80) indicates that TV viewing appears to be motivated by a desire for entertainment, rather than for information or to consume unoccupied time.

Strand and others (101a) found that when Iowa farmers were asked where they got information related to twelve different farm subject groups, they reported that they got the information from farm papers and farm magazines (58%); from radio (23%); from newspapers (14%); and from TV (5%). They also reported that the most helpful sources for the information on the same subjects were: farm papers and farm magazines (76%); radio (9%); TV

(5%); newspapers (4%); and would not choose one of these sources (6%).

Hoiberg and Huffman (44) found that the farm operators use TV programs as sources for market information (70.1%); for information on existence of new products or procedures (58.7%); and for information on how to use products and procedures in farming operations (54.4).

Iowa State University Cooperative Extension Service (49) asked some people in the WOI-TV viewing area to respond to several pages of questions regarding the "Extension Report Program" on TV. Seventy-five percent said they use TV in addition to going to traditional colleges and classrooms for continuing education.

The Extension Editorial Office at the University of Illinois (108) in their study of Midmorning Radio and TV Listening in East-Central Illinois found that 24 percent of the respondents listened to radio, 24 percent watched TV, and 52 percent did not listen or watch.

In summary, this section indicates that most farmers rated TAIP as about average in interest as compared to most programs they watch on TV and the lowest source of information on farming as compared to farm papers and magazines, radio, and newspapers. However, most of them felt that it was fairly or very important that extension service continue to offer TV programs.

### Demographic and Background Data

Smith and Zopf (100) classify farm tenure status in which the people who have the highest position stand at the top, and those suffering the lowest possible circumstances, at the bottom. These several tenure groups represent a continuum of decreasing rights to the land upon which the agriculturists labor and may be ranked as follows: 1) farm operators; owners, managers or administrators, and renters (cash, standing, and share); and 2) farm laborers; wage hands, sharecroppers, and members of agricultural colonial rule.

Schramm, Tack, and Pool (92) have found the main factors which distinguish ETV viewers from nonviewers to be higher social status, higher aspiration, higher cultural level, higher interest in public affairs, and higher energy levels. Viewing of ETV goes by families, and ETV viewers tend to be purposeful rather than "let's see what's on".

Meyersohn in 1960 (69) found the amount of TV viewing was positively related to being at home, inversely related to leisure alternatives, and inversely related to education in the U.S. He also found that a relationship of viewing TV with education was not linear. The least educated did not view more than those in the next higher education category. The amount of viewing that was thought to be (right) was inversely related to education. Education was more strongly related to viewing standards and attitudes than to amount of viewing.

Wilson (117) found that the older farm operators spent more time with the mass media than did younger ones. Farmers with smaller families also

spent more time with mass media than did those with larger families. The more cropland the farmer operated, the more time he spent with the media. Farmers working part-time off the farm spent significantly more time watching TV than did full-time farmers.

Ross and Bostian (86) found that the level of education and level of income had little relationship to the differences in the time farmers spent with mass media. There was no significant difference in the time spent with the different media by low-income and high-income farmers, although the low-income farmers did spend slightly more time with TV and slightly less time with reading and radio. They found also that farm operators spent an average of 3½ hours a day with media during the winter season; women spent more time in contact with the media than did men. Both spent an average of half their media time with TV, 35 percent with radio, and 15 percent with reading.

Waltor (112) in his study, of a Pennsylvania community's reaction to the "County Extension TV Program", found that two out of five farm viewers were men, but that only one man for every three women said the programs were helpful. The regular viewers with no previous contact with extension were mostly blue collar people with moderate education.

From this section, it can be concluded that the viewing of TAIP tends to be purposeful rather than "let's see what's on". The time spent viewing TV programs appears to be positively related to being at home, age, and the size of cropland the farmers operated, and inversely related to level of education, level of income, leisure alternatives, family size, and amount of time working off the farm.

### Summary

In this chapter an attempt has been made to gather data for the treatment of the research problem and the available related material reviewed. These materials were discussed briefly under the following subheadings: 1) Farm Operators as Self-Directed Learners; 2) Research on TV Programs; 3) Viewing Habits and Preferences of Watching TV; 4) Frequency and Reasons for Watching TAIP; and 5) Demographic and Background Data.

The work of Tough, Knox, Knowles, Hiemstra, and others about the self-directed learning theory should be kept in mind. A farm operator can generally be perceived as a self-directed learner who takes the initiative and carries out the responsibility, with or without help from others, for diagnosing his learning needs, formulating goals, deciding to watch (or not watch) one or all of TAIP, and evaluating these programs to decide alone whether or not to continue watching them.

Research on TV programming provides basic data for decisions on policy making, programming, program development, and promotion of TV programs. The present study was based on a limited sample of the audience of TAIP in central Iowa. This study has focused on the viewership potential, size, habits, preferences, and attitudes of farm operators. It was designed to find major answers for the questions related to the first two stages of the research in the area of TV program development (Pre-Production and Formulative Research). The third stage, Summative Research, is recommended for further detailed study.

Included are different research findings related to timing, days, and seasons for watching TAIP. Most of these findings show that most farmers have their own TV sets in their homes. They watched TV agricultural programs. Winter (November-March) was the best season in which to reach a farm audience. Most farmers, in general, preferred Sundays and Tuesdays to watch TAIP. They used TV primarily in the evening hours with some morning and noon use.

In regard to the frequency and reasons for watching these programs, the literature shows that most farmers rated agricultural TV programs as about average in interest as compared to most programs they watch on TV and the least used source of information on farming as compared to farm papers and farm magazines, radio, and newspapers. However, most farmers felt that it was fairly or very important that the extension service continue to offer TV programs.

In respect to the demographic and background data of farm audience, the studies seem to show that the viewing of TAIP tends to be purposeful rather than "let's see what's on". The amount of TV viewing was positively related to being at home, age, and the size of cropland the farmers operated, and inversely related to level of education, level of income, leisure alternatives, family size, and amount of time spent working off the farm.



### CHAPTER III. METHODS AND PROCEDURES

The main purpose of this study is to identify the viewing habits and preferences of selected farm operators in central Iowa based on the viewership of four weekly televised agricultural information programs.

This chapter describes the methods and procedures that were used to gather and analyze the data required for the study. It is divided into eight parts: 1) Population of the Study; 2) Sample of the Study; 3) Questionnaire Development and Pretesting; 4) Data Collection; 5) Hypotheses to be Tested; 6) Basic Assumptions; 7) Delimitations of the Study; and 8) Data Analysis.

#### Population of the Study

The initial population studied to obtain the necessary information related to the stated objectives of this study consisted of the farm operators living in eighteen counties in central Iowa. These counties were completely covered by the overlapping viewing area of the four TV stations studied (Appendix B).

About 736,500 people live in the eighteen counties. The population represents about 25.58 percent of the total population in Iowa. The total farm population in that area is about 96,600, which represents about 18.38 percent of the total Iowa farm population (98).

### Sample of the Study

From the eighteen counties, a random sample of six counties was selected to be studied. These six counties include a farm population of 30,000 which represents 31.06, 5.71, and 0.38 percent of the total farm population in the eighteen counties, the state of Iowa, and the U.S.A. respectively (98). By a random multi-stage approach, a sample of 285 farm operators was drawn from "Rural Resident Directories" of 1977 and 1978 (88).

A random multi-stage sample was established through the following stages or steps:

1. Six groups of three adjacent counties were selected.
2. One county at random from each group was selected.
3. One-fourth of the townships (using the survey township boundary when different from the civil boundary) were selected.
4. One-fourth of the sections of land with equal probability within each sample township were selected.
5. All names which were identified by "R" (renter) or "O" (owner) within each sample section were selected.

Note:

- a. This procedure will maintain equal probability down to section level.
- b. Over-all probability =  $6/18 \times 1/4 \times 1/4 \times 1 = 1/48$ .
6. A sample of 427 farm operators was thus chosen.
7. Every third name on the list of the selected names was discarded systematically after a random start of three to reduce the total number to a desirable sample size.

A summary of this procedure is shown in Table 3.1.

### Questionnaire Development and Pretesting

To ascertain past research content in the area of the present study and to formulate ideas on the type of information needed, the author 1) conducted an extensive review of literature; 2) sent out 125 letters (Appendix C) to local, national, and international persons, groups, organizations, and universities who were interested in the topic studied; 3) made personal office calls or sent letters to program directors or coordinators of the four TV stations studied; and 4) made personal consultations with various Iowa State University faculty and staff members.

After collecting basic information and ideas from the above sources, two different mail questionnaires were developed to be used for collecting data, one for the four TV stations' program directors and one for the farm operators.

The questionnaire for TV stations program directors (Appendix D) included questions related to the TV station's physical facilities, agricultural information programs, and research findings related to the topic.

A preliminary draft of the questionnaire for farm operators was prepared and submitted to the members of the investigator's graduate committee and other faculty and staff members at Iowa State University who provided valuable assistance in formulating the questionnaire. The questionnaire (Appendix D) included the following seven divisions: 1) Viewership potential and audience; 2) Reasons for watching (or not watching) the programs;

Table 3.1. Summary of the sample drawn for the study

Sample counties	Farm <sup>a</sup>		No. of the sample <sup>b</sup>		Size of sample farm operators			
	population		TWP	Sections of land included farmers	Original <sup>b</sup>	Desirable	Returned	
	(000)	%					Incomplete <sup>c</sup>	Complete <sup>d</sup>
Hardin	5.7	(26.1)	4	18	65	( 43- 0) <sup>e</sup>	2	30 (74.4)
Lucas	3.3	(32.0)	3	10	29	( 20- 1)	1	7 (42.1)
Madison	4.5	(36.9)	4	32	92	( 61- 4)	6	25 (54.4)
Marshall	5.8	(13.6)	4	37	71	( 47- 3)	5	16 (47.7)
Polk	5.0	( 1.6)	4	18	64	( 43- 5)	6	10 (42.1)
Story	5.7	( 8.9)	4	35	106	( 71- 3)	9	26 (51.5)
Total	30.0	( 6.5)	23	150	427	(285-16)	29	114 (53.2)

<sup>a</sup>(SRDS, 1978)

<sup>b</sup>The study's sample technique

<sup>c</sup>No TV, no longer farmer, deceased, or retirement

<sup>d</sup>Workable sample size for the study

<sup>e</sup>Not deliverable

3) Attitudes toward TV as a source of agricultural information; 4) Viewership habits; 5) Type of agricultural information program preferred on TV; 6) Recommendations to improve the programs; and 7) Demographic and background data.

#### Pretesting the questionnaire

The farm operators' questionnaire was pretested by farm operators who were not included in the sample of the study in April, 1980. The purpose of the pretest was to clarify each question as well as to estimate the amount of time required to complete the questionnaire. No changes were made after the pretest except for one word. The average completion time for the questionnaire was fifteen minutes. After testing, a final copy was prepared and the questionnaire was printed and numbered for identification purposes. The questionnaire was folded with a self-addressed and business reply form.

#### Data Collection

The following procedure was used to collect the mail survey data for this study:

1. A cover letter (Appendix C) was drafted explaining the significance of the study and the selection of the sample of farm operators and giving directions for completing the questionnaire. The cover letter and the questionnaire were sent out on May 16, 1980 to 285 farm operators randomly selected from the six counties included in the study.

2. 221 follow-up letters encouraging nonrespondents to complete the questionnaire were mailed on June 9, 1980 (three weeks after sending the original one). A new cover letter (Appendix C) and replacement questionnaire were included for the convenience of the respondents.
3. 162 second follow-up letters encouraging nonrespondents to complete the questionnaire were mailed on July 28, 1980 (seven weeks after sending the first follow-up letters). A third cover letter (Appendix C) and second replacement questionnaire were included for the convenience of the respondents.

A summary of the responses by the farm operators is presented in Table 3.1. Of the 285 questionnaires mailed, 16 were returned undeliverable because the addressees had moved and left no forwarding address or were unknown. A total of 143 were returned, with a response rate of 53.2 percent. Only 114 out of 143 returned questionnaires or 47.5 percent were complete. The other 29 returned questionnaires were incomplete, because the addressee had died, had no TV set, was no longer a farm operator, had an expired forwarding address, or had retired. The findings of the study were based on only the 114 completed questionnaires.

### Hypotheses to be Tested

For the purpose of this study, the following general null hypotheses were formulated for testing:

1. There is no significant relationship in viewing televised agricultural information programs (TAIP) among groups of farm operators and the number of TV sets they have at home.
2. There is no significant relationship in viewing TAIP among groups of farm operators and the place where they were reared.
3. There is no significant relationship in viewing TAIP among groups of farm operators and their ages.
4. There is no significant relationship in viewing TAIP among groups of farm operators and the highest educational levels which they completed.
5. There is no significant relationship in viewing TAIP among groups of farm operators and their land tenure relationship.
6. There is no significant relationship in viewing TAIP among groups of full-time farm operators and those who have jobs in addition to farming.
7. There is no significant relationship in viewing TAIP among groups of farm operators and the size of farm they operated.
8. There is no significant relationship in viewing TAIP among groups of farm operators and their type of farm operation.

9. There is no significant relationship in viewing TAIP among groups of farm operators and percentage of families' total net income from farming.
10. There is no significant relationship in viewing TAIP among groups of farm operators and their total number of years experience in farming since 18 years of age.
11. There is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the awareness stage of the adoption process.
12. There is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the information stage of the adoption process.
13. There is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the evaluation stage of the adoption process.
14. There is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the trial stage of the adoption process.
15. There is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the adoption stage of the adoption process.



16. There is no significant relationship in viewing TAIP among groups of farm operators and the number of hours per day they spend watching TV during each specific season of the year.

### Basic Assumptions

For the purpose of this study, the following basic assumptions were made:

1. The recently available "Rural Resident Directory" for the sample of the six counties studied had an accurate and complete list of the all farm operators identified by "O" (owner) or "R" (renter) in each county's directory from which the sample of the study was drawn.
2. Bias was not introduced in the selection of the six counties or the sample of farm operators within each county for this study.
3. All selected farm operators were able to read, understand, and respond accurately to the items of the questionnaire.
4. Within the overlapping viewing area, all the farm operators within this study received adequate reception of the four TV stations at all times.
5. The four weekly agricultural information programs on TV were equally available to the farm operators in the entire area of this study.

6. The farm operators studied throughout the overlapping viewing area were a heterogeneous group in relation to the characteristics being studied.
7. The response to the questions asked of the farm operators was a valid and reliable measure of the characteristics being studied.
8. The major televised agricultural programs and technical and physical facilities information obtained from the four TV stations was correct and without bias by the staff.
9. Statements made in this study were on the basis of the responses of those farm operators who returned completed questionnaires. The characteristics of those who failed to return questionnaires were not significantly different from those who completed and returned the questionnaires.

#### Delimitations of the Study

The following were the major delimitations of this study:

1. The scope of this study was limited to a sample of six counties completely covered by the overlapping viewing area in central Iowa. These counties were Hardin, Lucas, Madison, Marshall, Polk, and Story.
2. The respondents completing the questionnaire were listed as farm operators in Rural Resident Directories of the six counties for 1977 and 1978.

3. This study was restricted to the overlapping viewing area of the four broadcasting TV stations in central Iowa. These stations were WOI (ch. 5), KCCI (ch. 8), IPBN (ch. 11), and WHO (ch. 13).
4. This study was restricted to the weekly TV agricultural information programs which were ten to thirty minutes in length. These programs were "Extension Update", "U.S. Farm Report", "Market-to-Market (Farm Digest)", and "Ag. U.S.A.".
5. This study was restricted to broadcast TV programs only. Cable Television (CATV); Closed Circuit Programs (CCTV), Pay Television (PTV), Mobile Video Tape Units (MVTU), or radio broadcasts were not included.
6. This study was concerned with the viewership potential, audience (size), habits, preferences, and attitudes of farm operators toward TV as a source of agricultural information.
7. Since mailed questionnaires were used to obtain the responses from the sample farm operators, the research is subject to the weaknesses inherent in this data collection method.
8. The questionnaire used in this study was developed specifically for this study, it was not correlated with any other valid instruments.

## Data Analysis

The data analysis procedure followed in this study is described in the following paragraphs:

1. A coding system was developed and all items on the questionnaire were coded.
2. As the questionnaires were coded they were inspected for missing data. All missing data were coded as blanks and not averaged into the findings.
3. After coding was completed, the data were directly key-punched on International Business Machine (IBM) cards for processing and verified for accuracy.
4. A statistical computer program known as SPSS (Statistical Package for the Social Sciences) was used for summarizing and analyzing the data. The following SPSS Subprograms were used: FREQUENCIES, CROSSTABS, AND ONEWAY (Nie et al., 1975).
5. SPSS Subprograms FREQUENCIES, CROSSTABS, AND ONEWAY were used to describe the respondents.
6. SPSS Subprogram ONEWAY was used to determine differences in level of viewing TAIP among the four viewer groups when the response was continuous in nature. Ranges and Scheffé tests were used to identify significant differences among viewer groups at the .05 level of probability.

7. SPSS Subprogram CHI-SQUARE was used to determine differences in level of viewing TAIP among the respondents when the response was discrete type of data.
8. In the attitude section, each item was rated through the use of a one-to-five Likert scale of importance with a rating of one indicating not important and five indicating very important.

## CHAPTER IV.

### FINDINGS AND DISCUSSION

This chapter includes the analyses of data collected in the study based on two types of computation: descriptive statistics and inferential statistics. The descriptive analyses are presented in the first two sections of this chapter (Farm Operators' Characteristics and Farm Operators' Habits and Preferences) and the inferential analysis is presented in the third section (Testing of Hypotheses).

#### Farm Operators' Characteristics

This section will include description and analyses of demographic and background characteristics of the farm operators participating in the study.

Sixty out of the 114 farm operators of this study were 55 years of age or older, representing 52.7 percent of the sample. About 32 percent were between 35-54 years old. The majority of farm operators, 90.2 percent, were reared on farms, while 9.8 percent were reared in urban, small town, or nonfarm rural areas by their own definition. Fifty-nine percent of the respondents had at least 30 years experience in farming since the age of 18. Slightly over 81 percent of the sample had at least a high school diploma. About 39 percent had obtained some college work or graduated from college at either undergraduate or postgraduate levels.

About three-quarters of the respondents were full-time farmers, while slightly more than a quarter had part-time off-farm jobs in addition to farming.

In regard to the land tenure relationship, 45 percent of the farmers owned all land farmed, and about 38 percent owned some land and rented some. Over two-thirds of the operators farmed less than 400 acres. The majority of the respondents, approximately 64 percent, can be classified as diversified farmers. In other words, the majority of the surveyed farm operators produce crops, livestock, and poultry. Over one-third can be classified as specialized farmers who produce either crops only (cash grain) or livestock and/or poultry.

The majority of the respondents in the study, 75.6 percent, reported that farm income represented over 50 percent of their families' total net income in 1979.

To complete the description and analyses of characteristics of farm operators, a summary of further breakdown of some of the findings can be found in Table 4.1.

Table 4.1. Characteristics of farm operators participating in the study

Category	Number <sup>a</sup>	Percentage
<u>Years of age</u>	<u>114</u>	<u>100.0</u>
Under 35 years	17	14.9
35-44 years	20	17.5
45-54 years	17	14.9
55-64 years	36	31.6
65 years and older	24	21.1
<u>Place where they were reared</u>	<u>112</u>	<u>100.0</u>
On farm	101	90.2
Not on farm	11	9.8
<u>Years of farming experience</u>	<u>110</u>	<u>100.0</u>
Less than 15 years	26	23.6
15-29 years	19	17.3
30-44 years	40	36.4
45 years and over	25	22.7
<u>Educational level achievement</u>	<u>114</u>	<u>100.0</u>
Some high school	21	18.4
Grad. from H. S.	49	43.0
Some college work	24	21.1
Grad. from college	20	17.5

<sup>a</sup> The total number of responses varied for each question



Table 4.1. (continued)

Category	Number	Percentage
<u>Off-farm jobs</u>	<u>111</u>	<u>100.0</u>
Yes	28	25.2
No	83	74.8
<u>Land tenure relationship</u>	<u>109</u>	<u>100.0</u>
Rent all land farmed	16	14.7
Own all land farmed	49	45.0
Own some land and rent some	41	37.6
Farm manager	3	2.8
<u>Farmland size</u>	<u>108</u>	<u>100.0</u>
Less than 200 acres	33	30.6
200-399 acres	40	37.0
400-599 acres	16	14.8
600 acres or more	19	17.6
<u>Type of farm operation</u>	<u>110</u>	<u>100.0</u>
Crops only	32	29.1
Livestock and/or poultry	8	7.3
Combination	70	63.6

Table 4.1 (continued)

Category	Number	Percentage
<u>Percentage of net family income from farm</u>	<u>111</u>	<u>100:0</u>
50% or less	27	24.3
51-99%	33	29.7
100%	51	45.9

From the data presented in this section, a profile of a typical central Iowa farm operator within the sample can be established.

The farmer respondent was a person over 45 years of age, who had graduated from high school or beyond, had been reared on a farm, and had more than 22 years experience in farming. He was a full-time farmer, owning all or some of the land. He farmed at least 200 acres, and was a diversified farm operator, with 51 to 100 percent of the family's total net income coming from farming.

Though this picture is a hypothetical composite, as a generalization it is based on data from the above nine characteristics which describe about two-thirds of the participants in the study.

#### Farm Operators' Habits and Preferences

This section includes description and analyses of data collected in the study which were not presented in the first section of this chapter.

One of the objectives of this study was to determine the viewership potential of the central Iowa farm operators. It is possible to determine the viewership potential by three major measurements: 1) Adequate reception of the four TV stations at all times; 2) Ownership of at least one workable TV set at home; and 3) Familiarity with the televised agricultural information programs studied.

For the first measurement, one of the basic assumptions of the study was that all the farm operators in this study received adequate reception of the four TV stations at all times. In regard to the access to TV, the findings of this study pointed out that forty of the 114 sample farm operators, 35.1 percent, had one TV set at home. Fifty-seven or 50 percent had two TV sets, while seventeen or 14.9 percent had three TV sets or more. Although there were two farm operators in the original sample of the study who didn't have a TV set, they were not included in the study because of incomplete questionnaires. Thus it would seem that all the participants in the study had access to TV. Data in Table 4.2 indicate that 54.4 percent of the participants were not familiar with Extension Update; 36.6 percent not familiar with U.S. Farm Report; 28.9 percent not familiar with Market-to-Market; and 71.1 percent were not familiar with Ag. U.S.A.

Table 4.2. Level of viewing individual televised agricultural information programs, TAIP, (N = 114)

Programs	Not familiar %	Know about but never watch %	Watch 1 or 2 times a month %	Watch nearly every week %
Extension Update (ch. 5 - Sat. 12 P.M.)	54.4	14.9	20.2	10.5
U.S. Farm Report (ch. 8 - Sun. 10 A.M.)	36.8	21.1	21.9	20.2
Market-to-Market (Farm Digest) (ch. 11 - Fri. 8:00 P.M. <u>or</u> Sun. 12:30 P.M.)	28.9	11.4	27.2	32.5
Ag., U.S.A. (ch. 13 - Sat. 6:30 A.M.)	71.1	14.0	14.0	0.9

From the above, it can be concluded that at least three-quarters of the farm operators in central Iowa had adequate viewership potential for televised agricultural information programs.

It was also noted in Table 4.2 that some participants knew about the programs but never watched them. If the two categories of "not familiar with" and "know about but never watch" are added together, the total will be about 85, 69, 58, and 40 percent of all participants who didn't watch Ag.

U.S.A., Extension Update, U.S. Farm Report, and Market-to-Market, respectively. In other words, it can be concluded that about 31%, 42%, 60%, and 15% respectively of the participants in the study watch each of these programs at least once a month. The information in the same table reveals that farm operators watch Market-to-Market more often than the other three. Next, they most often watch U.S. Farm Report, followed by Extension Update. The program they watch the least was Ag. U.S.A.

Table 4.2 presents information about the individual programs. However, this study is more concerned with viewing the four programs as a package. To achieve this purpose, an attempt has been made to scale the respondents according to their level of viewing of all four programs. These results are presented in Table 4.3.

Table 4.3. Farm operators grouped by their level of viewing TAIP

Viewer groups	Number	Percentage
Unaware	27	23.7
Nonviewer	26	22.8
Light viewer	45	39.5
Medium & Heavy viewer	16	14.0
Total	114	100.0

The sample farm operators were scaled or grouped according to their levels of viewing TAIP as a package. The viewer groups are defined, in Appendix A, as unaware, nonviewer, light viewer, medium viewer, and heavy viewer. The finding in Table 4.3 show that 23.7 percent of all participants in the study were classified in the unaware group, 22.8 percent as nonviewers, 39.5 percent as light viewers, and 14.0 percent as medium and heavy viewers. This may mean that 46.5 percent of the farm operators were not familiar with or knew about but never watched at least three of the four TAIP studied, while 53.5 percent watched at least two programs of the four at least once a month.

When there was competition between an agricultural program and a nonagricultural program or news broadcast on two different TV channels at the same time, farm operators were likely to choose an agricultural program to watch. Table 4.4 indicates that one-half of the respondents reported they would most often choose an agricultural program to watch, whereas a smaller number, 39.4 percent, would most often choose a non-agricultural program or news broadcasting.

The surveyed farm operators were asked what their reasons for watching TAIP on TV were. Their responses were, in consecutive descending order, as follows: 88.6 percent of the respondents reported that they watched such programs for farm market reports and forecasts; 81.6 percent for weather reports and forecasts; 55.3 percent for general political and economic conditions -- state, national, and international; 43.0 percent for production technology information (new agricultural equipment, chemicals, seed varieties, and how to use them efficiently); 27.2

Table 4.4. Choice of TV programs when other programs conflict with agricultural programs

Categories	Number	Percentage
Agricultural program	57	50.0
Nonagricultural program	3	2.6
News broadcasting	42	36.8
None of these	1	0.9
Undecided or no answer	11	9.7
Total	114	100.0

percent for farm management procedures (record keeping, decision-making models, tax information, etc.); 1.8 percent for no particular reason and 3.5 percent for other reasons. When they were asked to circle the most important reason among those checked, 61 out of 88 or 53.5 percent, of the respondents rated farm market reports and forecasts as the most important. Weather reports and forecasts were second (15.8%); general political and economic conditions were third (4.4%); and production technology information was fourth (2.6%). Farm management procedures rated as the lowest important reason (0.9%).

When questioned about their reasons for not watching the programs on TV, farmers indicated that programs were televised at inconvenient times (45.6%); they were too busy to watch (41.2%); they preferred to get farm information from other sources—such as radio, dealers, friends, extension staff, farm magazines, newspapers, etc.—(25.4%); they had competition for TV set use with other members of the family (20.2%); they said programs added nothing to their knowledge (16.7%);

they were more interested in entertainment type programs (9.6%); they didn't like the style of the presenters (9.6%); they had no particular reason or didn't know (1.8%); and gave other reasons (5.3%).

The respondents reported the most important reasons for not watching such programs were: first (14.9%), programs were televised at inconvenient times; second (13.2%), they were too busy to watch; third (7.9%), they preferred to get farm information from other sources. Competition for TV set use with other members of the family, programs not dealing with problems concerning their types of farm operation, and greater interest in entertainment-type programs followed as reasons for not viewing TAIP.

Out of 114 respondents, 106 or 93.0 percent, preferred weather reports and forecasts and 87 or 76.3 percent preferred farm market reports and forecasts to be televised on daily basis. Slightly less than two-thirds of the respondents preferred farm production technology and over one-half preferred farm management procedures to be televised on a weekly or monthly basis. More than one-third preferred general political and economic conditions on a weekly basis. However, about 8 percent preferred such information not be included in agricultural type televised programs. Table 4.5 presents a breakdown of this information.



Table 4.5. Preferred schedule for televised agricultural information programs (N = 114)

Types of agri. information	Daily	Weekly	Biweekly	Monthly	Occasionally	Never or no answer
	%	%	%	%	%	%
Farm market reports & forecasts	76.3	14.9	5.3	0	0.9	2.7
Weather reports & forecasts	93.0	2.6	0.9	0	0.9	2.9
Farm production technology	2.6	37.7	11.4	25.4	12.3	10.5
Farm management procedures	1.8	26.3	7.0	25.4	27.2	12.3
General political & econ. conditions	11.4	34.2	9.6	14.0	14.9	15.8

The participants included in the study were asked to check those time blocks which were convenient for them to watch TAIP. There were 77 possible time blocks to check. After collecting, tabulating and examining the data, it was found that the percentages of the preferred time blocks for the same categories in at least three different seasons of the year were about equal, and the different percentage between the three seasons and the fourth ranged only between 2 to 7 percent. In other words, there was little difference in the number of participants who checked the same time blocks for different seasons of the year. The season factor was joined and comparisons were made only between times of the day and days of the week. Table 4.6 contains the frequencies and percentages which are rank ordered from the most preferred to the least preferred time blocks.

Table 4.6. Preferred time blocks to watch TAIP (N = 114)

Time blocks	Mon.-Fri.	Saturday	Sunday	
	%	%	%	
Evening ( 5:30-10:00)	40.6	27.9	20.6	
Noon (12:00- 1:00)	31.8	18.0	9.0	
Early Morn. ( 6:00- 8:00)	18.4	14.9	5.5	
Late Even. (After 10:00)	10.8	6.4	5.7	
Late Morn. ( 8:00-12:00)	3.5	2.2	5.9	
Afternoon ( 1:00- 5:30)	0.9	1.6	5.2	
Don't watch				7.9
No preferences				7.9

Based on the data in Table 4.6, it appears that for the surveyed farm operators the most preferred time block to watch TAIP was evening; the next most was noon; followed by early morning; then late evening on weekdays (Mon.-Fri.); then on Saturdays and last on Sundays. The fifth preferred time block was late morning and the least preferred time block was afternoon on Sunday rather than weekdays or Saturdays. The findings of the study reveal also that nine persons, 7.9 percent, reported that they didn't watch such programs and another nine, 7.9 percent, reported that there was no preference for any time to watch the programs.

The kind of information that the farm operators would like to see presented on TAIP is listed according to their order of importance: grain and livestock market information was checked most often (90.4%); weather reports and forecasts specifically related to farming was the next most important (83.3%), followed by Iowa State University news related to agriculture (50.0%); and saving time and labor on the farm (49.1%). Conservation (forests, soil, and water) and foreign agricultural trends were equal (43.0%); followed by how-to-do farm production (32.5%); extension news and activities (30.7%); safety and fire prevention (26.3%); and farm record keeping and analysis was checked least often (22.8%).

All respondents to this question were asked to circle the three most important among those they checked. Grain and livestock market information was ranked as the most important (67.6%). Weather reports were the second most important (54.7%). Foreign agricultural trends, Iowa

State University news, and conservation were third (14.0%), fourth (10.5%) and fifth (9.7%) respectively.

When the participants in the study were asked what changes they felt were needed to improve TAIP, 10.5 percent of the respondents reported that no changes were needed. About one-half reported that the first favorable change needed to improve the programs was more repetition of the programs so that farmers could have a choice of two different viewing times. Change in time of the day and/or day of the week was the second change suggested (39.5%). More up-to-date information was the third (28.1%). More visual work and less lecturing was the fourth (23.7%), and more detailed subject matter was fifth (13.2%). The least frequently mentioned changes were changes in subject matter to be televised and better presenters (hosts). Bringing back old programs was rated least important.

### Testing of Hypotheses

The second part of the analysis of data collected in the study was the computation of inferential statistics. The data from this study are presented in this section according to the null hypotheses which were tested by using the Chi-Square test or the Analysis of Variance and F test. For this study a significance level at the .05 level was considered significant. Any significance level at .01 level was considered highly significant. A significance level at .001 was considered very highly significant. The .05, .01, and .001 levels of significance in the tables will be identi-

fied by one, two, and three asterisks respectively. If the values for chi-square or analysis of variance in the tables are not at the significant level, they will have no asterisk.

The analysis of the data was based on the testing of sixteen null hypotheses.

Ranges and Scheffé tests were used to identify significant differences in level of viewing televised agricultural information programs (TAIP) among viewer groups at the .05 level of probability.

When the Chi-square test was used, it was observed that some of the cells had low frequencies. Some tables were collapsed, as much as possible, in order to make comparisons between levels of viewing TAIP among viewer groups. In instances where the researcher was unable to group the data to increase the observed frequency per cell, the obtained data were used as they are. Therefore, the findings of this study should be interpreted according to this statement.

Null hypothesis #1 states: there is no significant relationship in viewing televised agricultural information programs (TAIP) among groups of farm operators and the number of TV sets they have at home. This hypothesis was tested with the chi-square test.

As substantiated in Table 4.7, the chi-square value of 23.85 was very highly significant at the .001 level. Therefore, the null hypothesis of no difference was rejected and it was concluded that, with the exception of the medium and heavy viewers who had two TV sets, as the number of TV sets farm operators had at home increased, the level of viewing televised agricultural information programs increased.

It can be noted from the table that about 77 percent of the farm operators who had three TV sets or more in the home were light to heavy viewers. Only about 50 percent who had one or two sets were light to heavy viewers.

As a results of this finding, it would seem that to increase the level of viewing of TAIP among farm operators in central Iowa, these programs should be televised at convenient times for them with repetition of the programs to avoid competition for TV set use with other members of the family, especially for those who have one TV set in the home.

Table 4.7. Viewer groups by number of TV sets (N = 114)

Viewer groups	Number of TV sets			Total %
	One %	Two %	Three or more %	
Unaware	35.0	19.3	11.8	23.7
Nonviewer	12.5	33.3	11.8	22.8
Light viewer	27.5	45.6	47.1	39.5
Medium & heavy (M. & H.) viewer	25.0	1.8	29.4	14.0
Total	35.1	50.0	14.9	100.0

Chi-square = 23.85\*\*\*

Null hypothesis #2 states: there is no significant relationship in viewing TAIP among groups of farm operators and the place where they were reared. This hypothesis was tested with the chi-square test.

As shown in Table 4.8, the chi-square value of 4.80 was not significant at the .05 level. Therefore, there was insufficient evidence to reject the null hypothesis. Consequently, it can be concluded that there was no difference in level of viewing of the programs in relation to the place on which farm operators were reared.

Table 4.8. Viewer groups by the place where they were reared (N = 112)

Viewer groups	Place where farm operators were reared		Total %
	On farm %	Not on farm %	
Unaware	22.8	36.4	24.1
Nonviewer	20.8	36.4	22.3
Light viewer and			
M. & H. viewer	56.5	27.3	53.6
Total	90.2	9.8	100.0
Chi-square = 4.80			

The data also indicate that the farm operators who were reared in urban, small town, or nonfarm rural areas were more likely to be medium and heavy viewers than were those who were reared on farms. An explanation

for that may be that those who were reared on farms probably know more about and have enough experience in farming, so they were less interested in such programs.

Null hypothesis #3 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their ages. This hypothesis was tested with the chi-square test.

As shown in Table 4.9, the chi-square value of 21.06 was significant at the .05 level. It was concluded accordingly that when farm operators become older, they watch televised agricultural information programs more frequently.

Table 4.9. Viewer groups by years of age (N = 114)

Viewer groups	Years of age					Total
	Under 35 %	35-44 %	45-54 %	55-64 %	65 & older %	
Unaware	17.6	40.0	29.4	16.7	20.8	23.7
Nonviewer	47.5	25.0	29.4	19.4	4.2	22.8
Light viewer	23.1	25.0	41.2	41.7	58.3	39.5
M. & H. viewer	11.8	10.0	00.0	22.2	16.7	14.0
Total	14.9	17.5	14.9	31.6	21.1	100.0
Chi-square = 21.06*						

The table reveals also that more than one-third of the farm operators who were less than 55 years of age were light to heavy viewers, whereas



about two-thirds of them who were 55 years or older were light to heavy viewers.

This finding is also consistent with the findings of Wilson (117) who found that the older farm operators spent more time with mass media than did younger ones. One explanation could be that older farmers have more free time to watch TV than do the younger ones.

Null hypothesis #4 stated that there is no significant relationship in viewing TAIP among groups of farm operators and the highest educational levels which they completed. This hypothesis was tested with the chi-square test.

As illustrated in Table 4.10, the chi-square value of 3.74 was not significant at the .05 level, thus indicating that there was a general consensus among the four groups because there was no significant difference in their level of viewing the programs.

Table 4.10. Viewer groups by highest educational level achieved (N = 114)

Viewer groups	Highest educational levels achieved				Total %
	Some H.S. %	Grad. H.S. %	Some College %	Grad. College %	
Unaware	23.8	28.6	16.7	20.0	23.7
Nonviewer	14.3	20.4	33.3	25.0	22.8
Light viewer	42.9	38.8	37.5	40.0	39.5
M. & H. viewer	19.0	12.2	12.5	15.0	14.0
Total	18.4	43.0	21.1	17.5	100.0

Chi-square = 3.74

It is felt that there was little, if any, relationship between the amount of TAIP viewing and highest educational level achieved. Similar findings were also reported by Ross and Bastian (86) and Megersohn (69) who found the level of education had little relationship to the differences in the time farmers spent with mass media in the U.S.

Null hypothesis #5 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their land tenure relationship. This hypothesis was tested with the chi-square test.

The result of the test is shown in Table 4.11. The nonsignificant chi-square value of 5.54 at the .05 level led to the conclusion that there was no difference in level of viewing the programs among groups of farm operators when grouped by their land tenure relationship.

Table 4.11. Viewer groups by land tenure relationship (N = 109)

Viewer groups	Land tenure relationship			Total %
	All rent %	All own %	Some rent & some own %	
Unaware	25.0	20.4	24.4	22.6
Nonviewer	31.3	22.4	19.5	22.6
Light viewer	37.5	40.8	43.9	41.5
M. & H. viewer	6.3	16.3	12.2	13.2
Total	15.1	46.2	38.7	100.0

Chi-square = 5.54

Null hypothesis #6 states: there is no significant relationship in viewing TAIP among groups of full-time farm operators and those who have jobs in addition to farming. This hypothesis was tested with the chi-square test.

As indicated in Table 4.12, it was observed that there were significant differences among the viewer groups of the respondents in relation to having jobs in addition to farming (chi-square value 8.07,  $P < .05$ ). It was concluded that full-time farmers watched the programs about twice as much as did part-time farmers.

Table 4.12. Viewer groups by having off-farm jobs (N = 111)

Viewer groups	Having jobs in addition to farming		Total %
	Full-time farmer %	Part-time farmer %	
Unaware	22.9	28.6	24.3
Nonviewer	16.9	39.3	22.5
Light viewer	45.8	25.0	40.5
M. & H. viewer	14.5	7.1	12.6
Total	74.8	25.2	100.0

Chi-square = 8.07\*

It was of interest to note that about 60 percent of the full-time farmers were light to heavy viewers, while the percentage of part-time farmers was only 32 percent.

This result is in disagreement with Wilson's finding (117) that farmers working part-time off the farm spent significantly more time

watching TV than did full-time farmers. Perhaps more studies to determine the reasons behind the two opposite findings should be conducted.

Null hypothesis #7 states: there is no significant relationship in viewing TAIP among groups of farm operators and the size of farm they operated. This hypothesis was tested with the chi-square test.

Based on data in Table 4.13, it may be stated that there was a non-significant chi-square value of 7.06 ( $P < .05$ ). It can be concluded that there was no difference in the level of viewing of the programs among the four groups of respondents when they were grouped according to size of farm operated.

Table 4.13. Viewer groups by size of farm operated (N = 108)

Viewer groups	Size of farm operated (in acres)				Total %
	Less than 200 %	200-399 %	400-599 %	600 & more %	
Unaware	30.3	12.5	25.0	26.3	22.2
Nonviewer	30.3	20.0	18.8	21.1	23.1
Light viewer	30.3	50.0	37.5	42.1	40.7
M. & H. viewer	9.1	17.5	18.8	10.5	13.9
Total	30.6	37.0	14.8	17.6	100.0

Chi-square = 7.06

Null hypothesis #8 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and the type of their farm operation. This hypothesis was tested with the chi-square test.

As displayed in Table 4.14, it can be stated that no significant difference was found in level of viewing TAIP when the respondents were grouped according to their type of farm operation.

Table 4.14. Viewer groups by type of farm operation (N = 110)

Viewer groups	Type of farm operation		Total %
	Specialized %	Diversified %	
Unaware	37.5	15.7	23.6
Nonviewer	17.5	24.3	21.8
Light viewer	32.5	44.3	40.0
M. & H. viewer	12.5	15.7	14.5
Total	36.4	63.6	100.0

Chi-square = 6.71

Wilson (117) found that the more cropland the farmers operated, the more time they spent with the media. This does not fully agree with the findings of the present study. However, upon a close review of the table, one can see that diversified farmers were more likely to watch the programs than were specialized ones.

Null hypothesis #9 states: there is no significant relationship in viewing TAIP among groups of farm operators and the percentage of family's total net income from farming. This hypothesis was tested with the chi-square test.

As summarized in Table 4.15, the chi-square value of 12.31 was not significant at the .05 level, therefore, there was insufficient evidence to reject the null hypothesis. It can be concluded that there was no

difference in level of viewing TAIP in relation to the percentage of a family's total net income from farming in 1979.

Table 4.15. Viewer groups by percentage of family's farm income (N = 111)

Viewer groups	Percentage of family's farm income			Total %
	Less than 50% %	50-99% %	100% %	
Unaware	29.6	30.3	17.6	24.3
Nonviewer	33.3	18.2	19.6	22.5
Light viewer	33.3	45.5	37.3	38.7
M. & H. viewer	3.7	6.1	25.5	14.4
Total	24.3	29.7	45.9	100.0

Chi-square = 12.31

Although there was no significant value for the test, one can see that the level of viewing TAIP increased among medium and heavy viewers as the percentage of the family's total net income from farming increased.

Null hypothesis #10 states: there is no significant relationship in viewing TAIP among groups of farm operators and their total number of years experience in farming since the age of 18. This hypothesis was tested by using analysis of variance and F test.<sup>1</sup>

As verified in Table 4.16, the F value of 4.17 was highly significant at the .01 level. Hence, the null hypothesis was rejected. Consequently,

<sup>1</sup> This hypothesis was also tested with the chi-square test. The chi-square value was significant at the .05 level.

it can be concluded that farm operators with more years of farm experience watch the programs more frequently.

Table 4.16. Viewer groups by years of farm experience

Viewer groups	Number	Mean	Standard Deviation (S.D.)
Unaware	26	32.5	1.21
Nonviewer	24	31.6	1.05 <sup>**</sup>
Light viewer	44	43.0	0.97
M. & H. viewer	16	41.2	0.91 <sup>**</sup>
Total	110	37.7	1.09

F value = 4.17

It was observed also that over two-thirds of those farm operators who had 30 years or more experience in farming since 18 years of age were light to heavy viewers. Fewer than one-half of those persons with less than 30 years of experience were light to heavy viewers.

This finding is also consistent with the previous finding that when the farm operators become older, they watch televised agricultural information programs more frequently (hypothesis #3).

Null hypothesis #11 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the awareness stage of the adoption process. This hypothesis was tested by using analysis of variance and F test.

As reported in Table 4.17, the F value of 3.67 was significant at the .05 level, and thus it was concluded that different viewer groups had different feelings about using TV as a source of agricultural information at the awareness stage of the adoption process.

Table 4.17. Viewer groups by their feelings about TV as a source of information at the awareness stage

Viewer groups	Number	Mean	S.D.
Unaware	24	2.63	1.31 <sup>*</sup>
Nonviewer	22	3.45	1.37
Light viewer	37	3.49	1.30
M. & H. viewer	13	4.00	1.29 <sup>*</sup>
Total	96	3.33	1.37

F value = 3.67

Based on the above findings, one can note that those farm operators who were light to heavy viewers reported that there was some importance in the use of TV as a source for getting new ideas in farming. Nonviewers reported that TV as a source of information was fairly important. Unaware viewers judged television as being from minor to fairly important as a source of agricultural information.

Similar results were found by Gauger (37), who found that TV was an effective way of getting new ideas.

Null hypothesis #12 states: there is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the information stage of the adoption process. This hypothesis was tested by using analysis of variance and F test.



Composite means for the viewing level for each group were also computed and reported in Table 4.18. The composite overall mean was 3.24. No significant difference existed among the composite means for respondents in the four groups.

Table 4.18. Viewer groups by their feelings about TV as a source of information at the information stage

Viewer groups	Number	Mean	S.D.
Unaware	23	2.78	1.38
Nonviewer	22	3.23	1.34
Light viewer	38	3.39	1.28
M. & H. viewer	12	3.67	1.44
Total	95	3.24	1.35

F value = 1.47

The composite data in the same table showed that TV as a source of agricultural information at the information stage was perceived to be of similar importance by all four groups of respondents (F-value of 1.47 was not significant at the .05 level). In other words, almost all viewer groups had about the same feelings about using TV for getting detailed information about a new idea and the possibility of using it on their farms. Their feelings were that it was fairly to somewhat important.

Null hypothesis #13 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the evaluation stage of the adoption process. This hypothesis was tested by using analysis of variance and F test.

Table 4.19 shows that there was a significant difference (F-value of 2.89,  $P < .05$ ) among group means for the level of viewing TAIP among the four groups of respondents in relation to their feelings about TV as a source of information at the evaluation stage.

Table 4.19. Viewer groups by their feelings about TV as a source of information at the evaluation stage

Viewer groups	Number	Mean	S.D.
Unaware	24	2.54	1.44 <sup>*</sup>
Nonviewer	22	3.05	1.36
Light viewer	35	3.43	1.17 <sup>*</sup>
M. & H. viewer	12	3.67	1.37
Total	93	3.14	1.36

F-value = 2.89

The data in the table also indicate that those farm operators who were light to heavy viewers reported that there was some importance to using TV as a source for getting necessary information to evaluate the new idea and making comparisons between it and the old one. Nonviewers indicated TV, as a source of information, was fairly important, while the unaware group evaluated TV as somewhat between minor and fairly important at the evaluation stage of the adoption process.

Null hypothesis #14 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the trial stage of the adoption process. This hypothesis was tested by using analysis of variance and F test.

When the analysis of variance test was conducted to reflect differences among group means, an F-value of 4.02 was found. This indicates that there was a highly significant difference among the group means; hence, different viewer groups had different feelings about TV as a source of agricultural information at the trial stage.

Table 4.20. Viewer groups by their feelings about TV as a source of information at the trial stage

Viewer groups	Number	Mean	S.D.
Unaware	23	2.22	1.35**
Nonviewer	21	2.86	1.31
Light viewer	36	3.28	1.16**
M. & H. viewer	11	3.45	1.29
Total	91	2.93	1.32

F-value = 4.02

By examining the data in the table, one can conclude that those farm operators who were light to heavy viewers reported that TV was fairly important for getting necessary information on how to try a new idea on a trial-run basis. The unaware group reported that TV was of minor importance. Nonviewer groups were in between the two other viewer groups.

Null hypothesis #15 was stated as follows: there is no significant relationship in viewing TAIP among groups of farm operators and their feelings about TV as a source of agricultural information at the adoption stage of the adoption process. This hypothesis was tested by using analysis of variance and F test.

Analysis of variance failed to show significant differences among the group means, indicating that overall the respondents perceived TV as a source of agricultural information at the adoption stage to be of similar importance for adopting new ideas.

Table 4.21. Viewer groups by their feelings about TV as a source of information at the adoption stage

Viewer groups	Number	Mean	S.D.
Unaware	23	2.09	1.28
Nonviewer	21	2.71	1.49
Light viewer	36	2.72	1.23
M. & H. viewer	11	2.73	1.27
Total	91	2.56	1.32
F-value = 1.34			

These data would indicate that almost all viewer groups reported that TV was minor to fairly important for getting information to adopt and use a new idea on a large scale basis.

Null hypothesis #16 states: there is no significant relationship in viewing TAIP among groups of farm operators and the number of hours per day they spent watching TV during each specific season of the year. This hypothesis was tested by using the analysis of variance and F test.

Reviewing Table 4.22, it was found that none of the four seasons had F-values that were significant at the .05 level. This hypothesis was also tested with the chi-square test. The four chi-square values were

not significant at the .05 level. This indicates that there was no difference in level of viewing TAIP in relation to the number of hours per day the farm operators spent watching TV during each specific season of the year.

Table 4.22. Viewer groups by number of hours daily watching TV during each specific season of the year

Viewer groups	No.	Fall		Winter		Spring		Summer	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Unaware	26	2.08	1.52	3.46	1.30	1.85	1.52	2.00	1.44
Nonviewer	26	2.15	1.22	3.65	1.13	1.88	0.95	2.04	0.92
Light viewer	45	2.31	1.46	3.71	1.47	2.24	1.61	2.11	1.42
M. & H. viewer	16	2.19	0.91	3.81	1.28	1.94	1.00	1.75	1.00
Total	113	2.20	1.34	3.65	1.32	2.03	1.38	2.02	1.26

F-values = Fall (.18), Winter (.28), Spring (.63), and Summer (.32)

Table 4.22 reveals that there is almost no difference in the number of hours per day for watching TV between viewer groups within each season although they spent more time watching TV during the winter season than any of the other seasons. This agrees with the findings of Ross and Bastian (86), Wilson (117), and Wozniak (120), who all found that winter (November-March) was the best season in which to reach a farm audience. The author feels this may be due to the fact that in winter outside work is usually at a minimum.

In summary, based on the findings and the objectives of the study, the following discussion can be made.

A profile of a typical central Iowa farm operator within the sample can be described as a person over 45 years of age, who had graduated from high school or beyond, had been reared on a farm, and had more than 22 years experience in farming. He was a full-time farmer, owning all or some of the land. He farmed at least 200 acres, and was a diversified farm operator, with 51 to 100 percent of the family's total net income from farming.

The demographic and background data included within this study was not used for correlation with any of the other data, but to provide an insight into the characteristics of the farm operators included in the study in relation to their level of viewing TAIP.

The findings showed that all farm operators had adequate reception of the four TV stations studied and had access to TV. But some of them were not familiar with these programs.

The findings also revealed that farm operators watch public television's Market-to-Market more often than they do the three programs on commercial stations. This may be due to one or more of the following reasons: farm operators were interested in the contents of the program, the program was televised at prime time, the program was televised twice a week, or there was no commercial advertisers on the program.

The data indicated that the unaware group and nonviewers were not familiar with and/or knew about but never watched at least three of the four TAIP studied, while light, medium, and heavy viewers watched at

least two programs of the four at least once a month.

There was almost no difference in the number of hours per day for watching TV between viewer groups within each season of the year although they spent more time watching TV during the winter season than any of the other seasons. Therefore, winter (November-March) can be considered the best season in which to reach a farm audience.

The two most important reasons that farm operators gave for watching TAIP were farm market and weather reports and forecasts. The two most important reasons given for not watching such programs were due to the inconvenient times of offering and the busy schedule of farmers for watching TAIP.

The findings also showed that TV as a source of agricultural information at the information and the adoption stages of the adoption process were perceived to be of similar importance by all four groups of respondents. TV was perceived to be of different importance at the other three stages.

The total time for each of the four TV stations on the air ranged from 120 to 140 hours per week. The total time devoted for agricultural and extension type programs per week were about one-half hour each for KCCI and IPBN, one hour for WOI, and three hours for WHO. From this information one can observe the amount of time devoted to TAIP compared to nonagricultural programs. It should be noted that the farm population who receive these programs represent at least 18.4 percent of the total Iowa farm population.

This may provide an explanation for why farm operators preferred to obtain farm information from sources other than television. This may be due to the lack of availability of such programs and the available ones were televised at inconvenient times.

If we are interested in effective communication with the farm operators in central Iowa and desire to increase their level of viewing TAIP, the planners and producers of such programs may use the findings of this study to be aware of the farm operators' viewing habits, preferences, and feelings about TV as a source of agricultural information. Also programs should be modified according to the farm operators' suggestions to improve TAIP and to avoid the reasons that some farm operators gave for not watching such programs.



## CHAPTER V.

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## Summary

The purpose of this study was to identify the viewing habits and preferences of farm operators living in central Iowa based on the viewership of four weekly televised agricultural information programs (TAIP).

The following objectives served as a means to this end:

1. To identify the demographic and background characteristics of the farm operators that are related to the frequency of TV viewing habits and preferences.
2. To determine viewership potential of the farm operators.
3. To determine the viewership audience (size) for each of the four weekly TAIP studied.
4. To determine the viewership habits of the farm operators.
5. To determine the viewership preferences of the farm operators.
6. To determine the farm operators' feelings about TV as a source of agricultural information which they need to learn about and to adopt as new ideas in farming.
7. To determine the reasons farm operators give for watching TAIP.
8. To determine why some farm operators don't watch TAIP.
9. To identify the major televised agricultural programs and technical facilities information from the four TV stations studied.

A random multi-stage sample of 285 farm operators living in six counties in the overlapping viewing area in central Iowa was selected to be studied.

Two different mail questionnaires were developed to be used for collecting the research data one for the four TV stations' program directors and one for the farm operators.

Data collection took place during the period from May 16, 1980 to August 15, 1980. Three copies of the farm operators' questionnaire with three different cover letters were sent out by mail during this period.

The data were analyzed by using descriptive statistics, the analysis of variance and F test, and the Chi-square test.

### Conclusions

Based on findings from the sample of farm operators living in central Iowa, the following conclusions were drawn:

1. Fifty-three percent of the farm operators were 55 years of age or older and about 32 percent were between 35 and 54 years old.
2. A majority of the farm operators (90.2 percent) were reared on farms.
3. Fifty-nine percent of the respondents had at least 30 years experience in farming since the age of 18.
4. More than four-fifths of the sample had at least a high school diploma.
5. About three-quarters of the respondents were full-time farmers.
6. Less than one-half of the farmers owned all land farmed and about 38 percent owned some land and rented some.

7. Over two-thirds of the operators farmed less than 400 acres.
8. Sixty-four percent of the respondents were classified as diversified farmers.
9. About three-quarters of the surveyed farm operators reported that farm income represented over 50 percent of their families' total net income in 1979.
10. It was found that at least three-quarters of the farm operators in central Iowa had adequate viewership potential for televised agricultural information programs (TAIP).
11. Results showed that surveyed farm operators watch public television's Market-to-Market program more often than they do the three programs on commercial stations. Second was U.S. Farm Report on channel 8, followed by Extension Update on ch. 5, and Ag. U.S.A. on ch. 13.
12. About forty-six percent of the respondents were not familiar with (or knew about but never watched) at least three of the four TAIP studied. However, about 53 percent watched at least two programs of the four at least once a month.
13. The farm operators indicated they were more likely to choose an agricultural program to watch than a nonagricultural program or news broadcast when there was competition between them.
14. As a group, the respondents ranked the preferred content of the televised agricultural programs they watched in the following order:
  - a. Farm market reports and forecasts.
  - b. Weather reports and forecasts.

- c. General political and economic conditions.
  - d. Production technology information.
  - e. Farm management procedures.
15. Some respondents gave the following reasons, in consecutive descending order, for not watching such programs:
- a. Programs were televised at inconvenient times.
  - b. They were too busy to watch.
  - c. They preferred to get farm information from other sources.
  - d. They had competition for TV set use with other members of the family.
  - e. Programs added nothing to their knowledge.
  - f. They preferred entertainment-type programs.
  - g. They didn't like the style of the presenters.
16. A majority of the respondents preferred weather and market reports to be televised on a daily basis, farm production technology and farm management procedures to be televised on a weekly basis or monthly basis, and general political and economic conditions on a weekly basis.
17. The surveyed farm operators reported that the preferred time blocks to watch the televised farm programs were in the following order:
- a. Weekdays (evening, noon, early morning, then late evening).
  - b. Weekends (Sunday afternoon; last preferred was late morning).
18. The respondents as a group ranked the importance of type of information that they would like to see presented on televised

agricultural programs in the following order:

- a. Grain and livestock market information.
- b. Weather reports and forecasts specifically related to farming.
- c. Iowa State University news related to agriculture.
- d. Methods of saving time and labor on the farm.
- e. Foreign agricultural trends and conservation (forests, soil, and water).
- f. How to do farm production.
- g. Extension news and activities.
- h. Safety and fire prevention.
- i. Farm record keeping and analysis.

19. Results indicated that the suggested changes to improve the televised agricultural programs were in the following order:

- a. More repetition of the programs.
- b. Change in time of the day and/or day of the week.
- c. More up-to-date information.
- d. More visual work and less lecturing.
- e. More detailed subject matter.
- f. Better presenters (hosts).
- g. Change in subject matter to be televised.

20. There was no significant relationship in viewing TAIP among groups of farm operators when grouped according to the place where they were reared, highest educational levels, land tenure relationship, size of farm, type of farm operation, percentage of family's farm income, feelings about TV as a source of agricultural information at information

and adoption stages, and number of hours per day they spent watching TV during each specific season of the year.

21. There was a significant relationship in viewing TAIP among groups of farm operators and their ages, whether they had off-farm jobs, and their feelings about TV as a source of information at the awareness and the evaluation stages of the adoption process.
22. There was a highly or a very highly significant relationship in viewing TAIP among groups of farm operators and the number of TV sets they have at home, years of experience in farming, and their feelings about TV as a source of agricultural information at the trial stage of the adoption process.

### Recommendations

The recommendations are divided into two categories.

#### Recommendations for practice

The findings and conclusions of this study led to the following recommendations:

1. An outline of the major findings of this study should be made available to the four TV station program directors or coordinators and other staff for their use in decision making and policy making, programming, program development, and promotion in regard to their farm television programs.
2. The findings of this study should be made available to groups and organizations interested in effective communication with farmers such

as agricultural education, cooperative extension, adult education, mass media, F.F.A., 4-H, etc.

#### Recommendations for further research

The possibilities for further investigation for televised agricultural programs are numerous.

1. Some of the results in this study suggest that no relationship exists between the viewing level of televised agricultural information programs and demographic and other variables of the respondent farmers. Further study needs to be done to better understand the relationship of these variables to the level of viewing of TAIP. The following are some of these variables: highest educational level, land tenure relationship, size of farm, type of farm operation, percentage of family's income from farming, and the place where farm operators were reared.
2. It is recommended that further studies be made to focus on summative research in order to measure effects of farm programs on TV and to compare these effects with goals and objectives of the program originators.
3. Similar studies should be made involving other farm television programs (daily, monthly, at different times a day, shorter time, etc.) not included in the present study.
4. A study needs to be initiated to compare the viewing and listening habits and preferences of farm operators for agricultural programs on both TV and radio.
5. An investigation should be conducted in other viewing areas of Iowa and in other states using limited, national, or international farm samples.

6. An indepth study should be made to determine which TV station farm operators most often choose to watch farm programs, and why they watch them.
7. Similar studies should be conducted involving nonbroadcasting agricultural TV programs such as Cable TV, Satellite transmitters, etc.



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## DEDICATION

This dissertation is dedicated to the two best persons in my whole life: my father, Abdel-Fattah M. Nomeir, and my mother, Ahsan R. Warda, may Allah (God) bless and forgive them, who raised me and taught me and took care of me during my childhood and adolescent years. And finally to my creator who is a parent to us all in the most magnificent ways.

**APPENDIX A: DEFINITION OF TERMS**



### Definition of Terms

For purpose of the study, selected terms were operationally defined as follows:

**Viewership potential.** Refers to the condition under which the sample farm operators can watch agricultural information programs on TV at home. This includes having at least one workable TV set at home, receiving adequate reception of the four TV stations studied, and awareness of the existence of these types of programs.

**Viewership audience.** Refers to the number and percentage of unaware group, nonviewers, light viewers, medium viewers, and heavy viewers for each of the four weekly TAIP studied.

**Viewership habits (patterns).** Refers to the average number of hours per day that farm operators spend watching TV during each specific season of the year and how frequently they watch the TAIP.

**Viewership preferences.** Refers to the farm operators' preferences to the best times of the day; the best days of the week in each specific season of the year to watch the TAIP; how frequently they prefer different types of agricultural information programs be televised; what type of information they like to see presented on these programs; which program (agricultural or nonagricultural) they most often choose to watch when there is competition between these programs; and the changes they feel are needed to improve the programs.

**Farm operators' attitudes.** Refers to the farm operators' opinions on or feelings about TV as a source of agricultural information which they need to learn about so as to adopt new ideas in farming.

Weekly televised agricultural information programs. Refers to those programs which were broadcast on-the air at least once a week, ten to thirty minutes in length, on a regular basis (at the same certain times on the same days each week), covering technical and practical agricultural information such as animal science, agronomy, agricultural economics, agricultural mechanization, horticulture, and other related topics. The programs studied were "Extension Update" (ch. 5), "U.S. Farm Report" (ch. 8), "Market-to-Market" (ch. 11), and "Ag. U.S.A." (ch. 13).

Six counties studied in central Iowa. The state of Iowa, U.S.A., is divided into ninety-nine counties. Eighteen of them are completely covered by the overlapping viewing area of the four TV stations studied and at the same time they are located in the central part of Iowa. From those eighteen counties, six (one-third) were randomly selected to be studied: Hardin, Lucas, Madison, Marshall, Polk, and Story.

Overlapping viewing area. Refers to the overlapping area between the four different stations' viewing areas. These stations were WOI (ch. 5), KCCI (ch. 8), IPBN (ch. 11), WHO (ch. 13).

Farm operators. Those persons who listed in the latest edition available of the "Rural Resident Directory" for each county studied, as owner "O" or renter "R" of farmland.

Nonviewer. A farm operator who indicated one of the following three cases: 1) Not familiar with two programs and knows about a third one but never watches it; 2) Not familiar with one and knows about two others but never watches them; or, 3) Knows about three programs but never watches them.

Light viewer. A farm operator who indicated that he is not familiar with and/or knows about two programs but never watches them and watches

the other two programs at least 1 or 2 times a month.

Medium viewer. A farm operator who indicated one of the following three cases: 1) Watches two programs 1 or 2 times a month and watches a third one nearly every week, 2) Watches one program 1 or 2 times a month and watches the other two nearly every week, or, 3) Watches at least three programs 1 or 2 times a month.

Heavy viewer. A farm operator who indicated that he watches at least three programs nearly every week.

Demographic and background characteristics. This refers to the main characteristics of farm operators studied in the present study, including 1) Age, 2) Place reared, 3) Experience in farming, 4) Education, 5) Off-farm job, 6) Land tenure relationship, 7) Size of farmland, 8) Type of farm operation, and 9) Family farm income.

Age. This was measured by asking the respondent to indicate to which age group he belongs, according to the following response categories: Under 25, 25-34, 35-44, 45-54, 55-64, and 65 years and older.

Place reared. This was measured by asking the respondents to indicate where they were reared, according to the following response categories: Urban, small town, nonfarm rural, and farm.

Experience in farming. This was measured by asking the respondents to write how many years they have farmed since age 18.

Education. Education was measured by asking the respondents to indicate their highest educational level achievement, according to the following response categories: 1) Grade school, 2) Some high school, 3) Graduated from high school, 4) Some college work, 5) Graduated from college, and 6) Postgraduate college.

Off-farm job. This was measured by asking respondent to indicate if he had full-time or part-time job in addition to farming.

Land tenure relationship. To obtain information on tenure relationship, the respondents were asked: "What is the tenure relationship of your land farmed?" response categories to this question were: 1) Rent all land farmed, 2) Own all land farmed, 3) Own some land and rent some, and 4) Farm manager (neither owned nor rented land).

Size of farmland. Refers to the number of acres farmed in 1979.

Type of farm operation. Refers to the three major types of farm operation: 1) Crops only (cash grain), 2) Livestock and/or poultry, and 3) Combination (crops, livestock, and poultry).

Family farm income. To obtain information on percentage of family farm income, the respondents were asked: "What percentage of your family's total net income came from farming in 1979?" response categories to this question were: 25% or less, 26-50%, 51-75%, 76-99%, and 100%.

Unaware farmer. A farm operator who indicated that he is not familiar with at least three of the four TAIP studied.

APPENDIX B: AGRICULTURAL PROGRAMS AND TV STATIONS' TECHNICAL  
AND PHYSICAL FACILITIES INFORMATION

Table A.1. TV stations' technical and physical facilities information

Channel and call letter	Location	Airdate	Video K.W.	Audio K.W.	Antenna ht. Ft.	Operation <sup>a</sup> schedule	Affiliated with
5-WOI <sup>b</sup>	Ames	2-21-1950	100	20.0	2,030	6:30 A.M. to 1-2 A.M.	ABC
13-WHO <sup>b</sup>	D.M.	3- 5-1954	316	47.3	1,973	6:00 A.M. to 1-2 A.M.	NBC
8-KCCI <sup>b</sup>	D.M.	7-31-1955	316	63.1	2,000	6:30 A.M. to 1-2 A.M.	CBS
11-KDIN <sup>c</sup>	D.M.	4-27-1959	316	31.6	1,973	6:45 A.M. to 12:45 A.M.	ETV

<sup>a</sup> This schedule for some stations operate 15-60 min. late on Sat. and/or Sun.

<sup>b</sup> (97, p. 122)

<sup>c</sup> (15, p. B-104)

Table A.2. Televised agricultural information programs for the four TV stations studied

Station letter call & channel	Program title	Regular base	Time	Length	Average min. per week
WOI (ch. 5)	Educational spots (through Good Morn. America)	Daily	7:12 A.M.	90 sec.	
		5 days/week			
	Market Report	Daily	6:58 A.M.	2 min.	
		5 days/week	News 6	30 sec.	
		3 times/day	News 10	30 sec.	
	Farm Report (through Good Morn. America)	Daily	7:25 A.M.	4-5 min.	
		6 days/week			
	Extension Update <sup>a</sup>	Weekly (Sat.)	12:00 noon	10 min.	
	Extension Report	Monthly last Tues. of the month	6:30 P.M.	30 min.	
					67.0 min.

KCCI (ch. 8)	Market Outlook	Weekly (Sat.)	Early Morn.	5 min.	
	U.S.D.A.	Biweekly (Sat.)	Early Morn.	5 min.	
	U.S. Farm Report <sup>a</sup>	Weekly (Sun.)	10:00 A.M.	30 min.	37.5 min.
IPBN (ch. 11)	Market-to-Market <sup>a</sup> (Farm Digest)	Weekly (Fri.)	8:00 P.M.	30 min.	
		Repeat (Sun.)	12:30 P.M.		30.0 min.
WHO (ch. 13)	County Day	Daily M-F	6:30 A.M.	30 min.	
	Ag. U.S.A. <sup>a</sup>	Weekly (Sat.)	6:30 A.M.	30 min.	180.0 min.

---

<sup>a</sup> The four weekly programs studied represented four TV stations, at four different times a day, weekends and weekdays, and repetition of one of them.



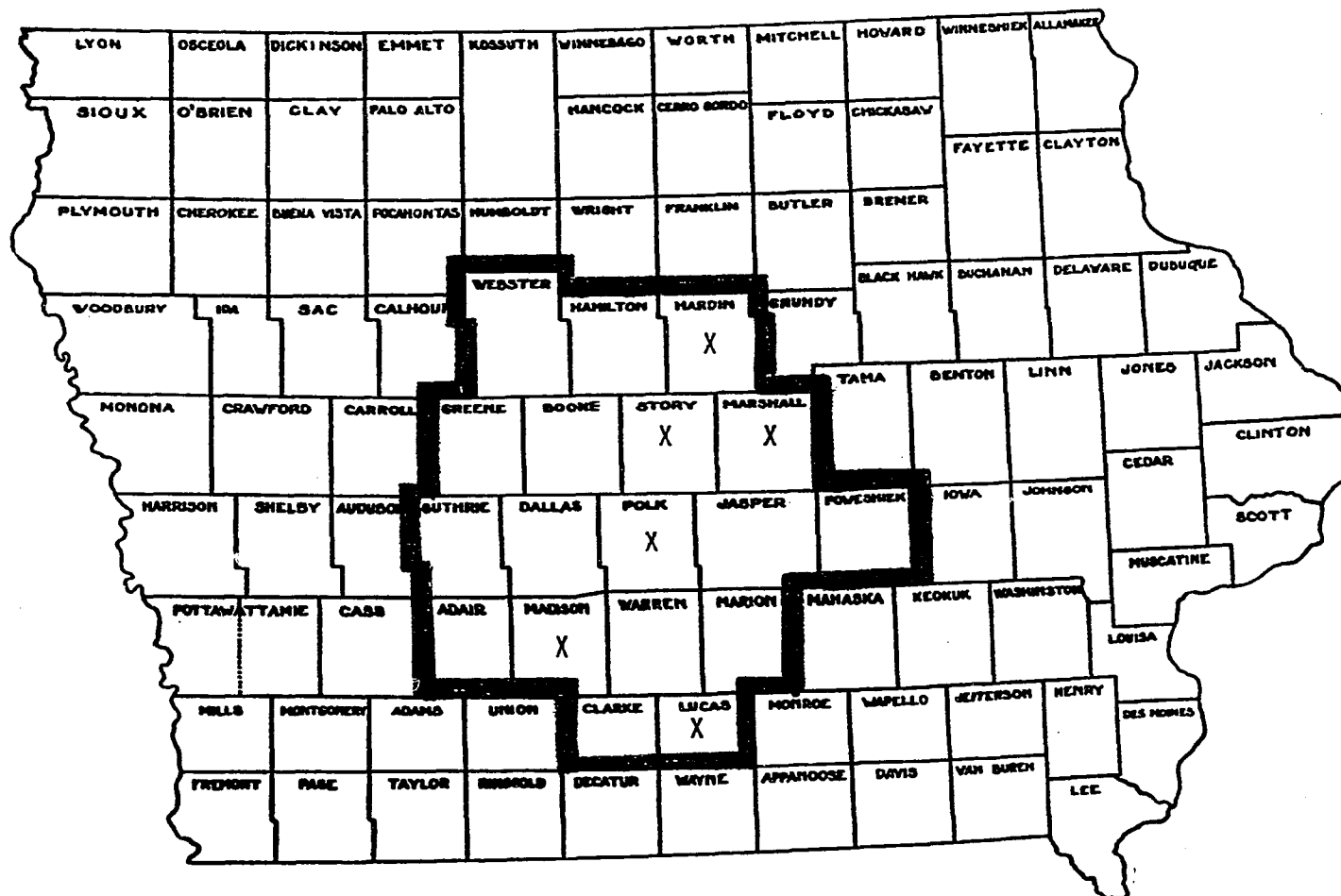


Figure A.1.



X

Overlapping viewing area for the four  
TV stations studied in central Iowa  
Six counties studied

## APPENDIX C: CORRESPONDENCE

	Page
Letter to local, national, and international persons, groups, organizations, and universities who were interested in the topic studied	102
Clearance for Use of Human Subjects in Research	103
Letter to the four TV stations' program directors	104
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First letter to the farm operators	106
Second letter (first follow-up) to the farm operators	107
Third letter (second follow-up) to the farm operators	108

527 Pammel Court  
Ames, Iowa 50010

Dear

My name is Said Nomeir, from Egypt, and I am a Doctoral student at Iowa State University. My major is Agricultural Extension Education with a minor in Journalism and Mass Communications. I plan to do my dissertation on central Iowa farm audience behavior. This includes viewership potential, habits, preferences, ratings, audience size, and attitudes toward farm and agricultural extension education programs on TV.

I'd appreciate it if you would send me a list of your publications, and the prices in general and specific topics related to extension, education, and communications-- especially TV studies. If there are any bulletins, papers, research or annual reports, summaries, booklets, brochures, and/or the like which are free of charge, please send me a copy of each.

Also I'm interested in learning more details about your organization, especially its purpose, scope of activities, policies, etc. I'm willing to cooperate with you in doing my dissertation.

Thank you very much for your cooperation

Sincerely yours,  
*Said Nomeir*  
Said A. Nomeir

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH  
IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

1. Title of project (please type): VIEWING HABITS AND PREFERENCES OF CENTRAL IOWA FARM OPERATORS FOR WEEKLY TELEVISED AGRICULTURAL INFORMATION PROGRAMS.

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

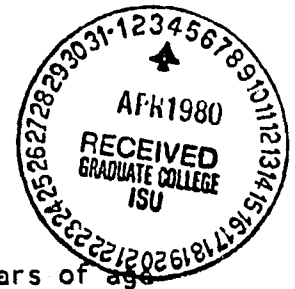
SAID ABDEL-FATTAH NOMEIR 4-4-1980 Said Nomeir  
Typed Name of Principal Investigator Date Signature of Principal Investigator

223 Curtiss Hall 294-5872  
Campus Address Campus Telephone

3. Signatures of others (if any) Date Relationship to Principal Investigator  
[Signature] 4-4-80 Major Advisor

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

- ☐ Medical clearance necessary before subjects can participate  
☐ Samples (blood, tissue, etc.) from subjects  
☐ Administration of substances (foods, drugs, etc.) to subjects  
☐ Physical exercise or conditioning for subjects  
☐ Deception of subjects  
☐ Subjects under 14 years of age and(or) ☐ Subjects 14-17 years of age  
☐ Subjects in institutions  
☐ Research must be approved by another institution or agency



5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

- ☐ Signed informed consent will be obtained.  
☒ Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: Month Day Year  
4 17 80  
Anticipated date for last contact with subjects: 6 27 80

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and(or) identifiers will be removed from completed survey instruments:

Month Day Year

8. Signature of Head or Chairperson Date Department or Administrative Unit  
[Signature] 4-4-80 AGRICULTURAL EDUCATION

9. Decision of the University Committee on the Use of Human Subjects in Research:

- ☒ Project Approved ☐ Project not approved ☐ No action required

George G. Karas 4/11/80 [Signature]  
Name of Committee Chairperson Date Signature of Committee Chairperson

527 Pammel Court  
Ames, IA. 50010

Dec. 10, 1980

Dear

I am an agricultural education graduate student at Iowa State University. For my Ph. D. dissertation, I plan to study the audience of agricultural extension TV programs (farm TV programs) who are living in the Central Iowa TV stations' overlapping viewing area. Your station will be included in the study.

I'd appreciate it if you would cooperate in this study by finding the time to answer the attached eight basic questions for this study. Hopefully, the results of this study will benefit you as a decision maker for such programs.

I am willing to cooperate with you and receive your suggestions for doing my dissertation. Thank you very much for your cooperation.

Sincerely,

*Said Nomeir*

Said Nomeir

Iowa State University of Science and Technology Ames, Iowa 50011



Department of Agricultural Education  
223 Curtiss Hall  
Telephone 515-294-5872

April 15, 1980

Dear

Very seldom would Harold Crawford write to you unless he wanted something and this is the case this time. I have a graduate student who is working on his research on the value of television for agriculture information to farmers, and he has developed the attached questionnaire. I have told him that I would write a few of my friends and ask them to test the questionnaire to see whether or not its workable and if there are changes that need to be made. I don't think the questionnaire will take very much time, but would you please complete it for me and do the following:

1. Make note of how much time it takes to complete the questionnaire (please write the number of minutes at the top of the first page).
2. Write any remarks about any question right on the questionnaire beside the question.
3. Send it back as soon as possible.

After it is returned we will print the regular copies, with your suggested changes, and forward it to the sample of farmers, of which you will not be included. In other words, your information is of value to us in terms of how well each question is written, not the content.

Hopefully, this won't take too much of your time and I thank you for the help which you are giving to me.

Sincerely,

*Harold R. Crawford*  
Harold R. Crawford  
Professor and Head

HRC/lah  
Enclosure

Iowa State University of Science and Technology



Ames, Iowa 50011

Department of Agricultural Education  
223 Curtiss Hall  
Telephone 515-294-5872

Dear Farm Operators:

A Ph.D. research study is being conducted at Iowa State University which has been designed to determine the viewing habits and preferences of farm operators in Central Iowa for weekly televised Agricultural Information Programs.

The sample of farm operators was randomly selected from the County Rural Residents Directory for six counties in Central Iowa and your name was selected. We therefore are enclosing a questionnaire and ask that you complete it for our study.

Although we recognize that you are now preparing for your spring farm work, we hope that you will cooperate and find the time to spend a few minutes in answering the enclosed questionnaire. Most questions will be answered by placing an (x) in the appropriate blank(s).

We want to thank you for your cooperation, which will be of utmost importance for this study and hopefully it will benefit you as a viewer of Agricultural Information Programs on television.

Your answer will remain strictly confidential. Please do not put your name on the questionnaire.

Sincerely,

Said Nomeir

Said Nomeir  
Graduate Student  
Agricultural Education, ISU

Harold R Crawford  
Harold R. Crawford  
Professor and Head  
Agricultural Education, ISU

Enclosure

Iowa State University *of Science and Technology* Ames, Iowa 50011



Department of Agricultural Education  
223 Curtiss Hall  
Telephone 515-294-5872

June 9, 1980

Dear Farm Operators:

Recently we sent you a questionnaire about your viewing habits and preferences for Televised Agricultural Programs. If the questionnaire has been completed and returned, please accept our thanks. If it has not been returned would you please do so as soon as possible. Enclosed is another copy in case you lost the first one.

It is important to receive answers from all farm operators for the results of this study to be meaningful. You do not need to put your name on the questionnaire because we are only interested in the responses of groups of farm operators.

Your cooperation in this study is greatly appreciated.

Sincerely,

*Said Nomeir*

---

Said Nomeir  
Graduate Student  
Agricultural Education, ISU

*Harold R. Crawford*

---

Harold R. Crawford  
Professor and Head  
Agricultural Education, ISU

Enclosure



Iowa State University of Science and Technology



Ames, Iowa 50011

Department of Agricultural Education  
223 Curtiss Hall  
Telephone 515-294-5872

July 28, 1980

Dear Farm Operators:

As of this date, we have not received a response from you on the first or the second questionnaire we sent regarding your viewing habits and preferences for weekly agricultural programs on TV.

The large number of questionnaires returned is very encouraging. But whether we will be able to describe accurately how Central Iowa farm operators feel on this important issue depends upon you and the others who have not yet responded. This is because the past experiences suggest that those of you who have not yet sent in your questionnaire may hold quite different habits and preferences for agricultural TV programs than those who have, so your response is needed.

In the event that your questionnaire has been misplaced, a second replacement is enclosed. May I please urge you to complete and return it as quickly as possible. It will only take 15 minutes to do and no postage is needed to return it.

Your contribution to the success of this study will be sincerely appreciated. Thank you.

Sincerely,

*Said Nomeir*

Said Nomeir  
Graduate Student  
Agricultural Education, ISU

*Harold R. Crawford*  
Harold R. Crawford  
Professor and Head  
Agricultural Education, ISU

Enclosure

**APPENDIX D: QUESTIONNAIRES**

	<b>Page</b>
<b>TV stations program directors' questionnaire</b>	<b>110</b>
<b>Farm operators' questionnaire</b>	<b>111</b>

## Agricultural Extension TV Programs

1. What is the total time per day for your station on the air?
2. What are general extension TV programs (local and/or national) your station is televising daily, weekly, biweekly, monthly, and/or occasionally?
3. What are agricultural extension TV programs (local and/or national) your station is televising daily, weekly, biweekly, monthly, and/or occasionally?
4. Please specify: on which day(s) of the week; at what time(s); the length of program(s); and the philosophy, policy, or purpose of offering each program?
5. Could you please send me a summary of any research, study, or survey conducted by yourself and/or by your station related to farm audience reaction, behavior, habits, rating, attitudes, and preferences?
6. Could I have a copy of the coverage map (viewing area) for your station? Also any public record, annual report, or any general information about your station?
7. What questions related to agricultural extension TV audience are you looking for to be answered by investigating such research study?
8. Do you have any other suggestions or comments related to this topic?



# Viewing Habits and Preferences of Farm Operators for Televised Agriculture Programs

Iowa State University, Ames

**DIRECTIONS:** Please answer all questions in this form by placing an (x) in the appropriate blank(s), unless directed otherwise. Thank you for your help.

1. How many T.V. sets do you have in your home?

- ☐ a. None
- ☐ b. One
- ☐ c. Two
- ☐ d. Three
- ☐ e. More than three

2-5. Are you familiar with the following televised Agricultural Information Programs and if so, how often do you watch them? (Check only one for each program)

	Not Familiar	Know about but never watch	Watch 1 or 2 times a month	Watch nearly every week
Extension Update (ch. 5 - Sat. 12 p.m.)				
U.S. Farm Report (ch. 8 - Sun. 10:00 a.m.)				
Market-to-Market (Farm Digest) (ch. 11 - Fri. 8:00 p.m. <u>or</u> Sun. 12:30 p.m.)				
Ag., U.S.A. (ch. 13 - Sat. 6:30 a.m.)				

6. If you were aware that an agricultural information program was on one channel and a non-agricultural program or news broadcast was on another, which program would you most often choose to watch? (check only one)

- ☐ a. Agricultural program
- ☐ b. Non-agricultural program
- ☐ c. News broadcasting
- ☐ d. None of these
- ☐ e. Undecided

7-14. What are your reasons for watching Agricultural Information Programs on T.V.? (First, check (x) as many reasons as apply to you. Second, circle the one that you feel is the most important reason among those you checked.)

- ☐ 7. Weather reports and forecasts
- ☐ 8. Farm market reports and forecasts
- ☐ 9. Production technology information (new agricultural equipment, chemicals, seed, varieties, and how to use them efficiently)
- ☐ 10. Farm management procedures (record keeping, decision-making models, tax information, etc.)
- ☐ 11. General political and economic conditions -- state, national, and international
- ☐ 12. No particular reason; or don't know
- ☐ 13. Other, please specify \_\_\_\_\_

- 15-25. What are your reasons for NOT watching the Agricultural Information Programs on T.V.? (First, check (x) as many reasons as apply to you. Second, circle the one that you feel is the most important reason among those you checked).
- \_\_\_ 15. Prefer to get farm information from other sources (such as radio, dealers, friends, Extension staff, farm magazines, newspapers, etc.)
- \_\_\_ 16. Too busy to watch
- \_\_\_ 17. Competition for T.V. set use with other members of the family
- \_\_\_ 18. Programs add nothing to my knowledge
- \_\_\_ 19. Programs don't deal with problems concerning my type of farm operation
- \_\_\_ 20. Programs are televised at inconvenient times
- \_\_\_ 21. Don't like the style of the presenters
- \_\_\_ 22. More interested in entertainment-type programs
- \_\_\_ 23. No particular reason; or don't know
- \_\_\_ 24. Other, please specify \_\_\_\_\_

- 26-30. We would like to know your opinion on each of the following purposes of T.V. for providing information on farm decision-making and operation. If you feel that using T.V. to achieve each statement is very important, write 5 on the line in front of the items. If you feel it is not at all important, write 1 on the line. Use numbers from 1 to 5.

1	2	3	4	5
Not Important	Minor Importance	Fairly Importance	Some Importance	Very Important

- \_\_\_ 26. Getting a new idea, method, or product for the farm operation.
- \_\_\_ 27. Getting detailed information about a new idea and the possibility of using it on my farm.
- \_\_\_ 28. Getting necessary information to evaluate the new idea and making comparisons between it and the old one.
- \_\_\_ 29. Getting necessary information on how to try a new idea on a trial-run basis.
- \_\_\_ 30. Getting necessary information to adopt and use a new idea on a large scale basis.

- 31-34. Approximately how many hours in an average day do you spend watching T.V. during each specific season of the year? (Please write the average number of hours per day.)
- \_\_\_ 31. Fall (Sept., Oct., and Nov.)
- \_\_\_ 32. Winter (Dec., Jan., and Feb.)
- \_\_\_ 33. Spring (Mar., Apr., and May)
- \_\_\_ 34. Summer (June, July, and Aug)

- 35-40. How frequently would you prefer the following types of agricultural information programs to be televised? (Check (x) only one for each column)

	Farm Market Reports & Forecasts	Weather Re- ports & Forecasts	Farm Pro- duction Technology	Farm manage- ment proce- dures	General poli- tical & econ- omic conditions
Daily					
Weekly					
Biweekly					
Monthly					
Occasionally					
Never					

- 41-117. Which of the following time blocks are convenient for you to watch agricultural information programs on T.V.? (Check (x) as many times on each line as you wish.)  
If you don't watch such programs, please check here \_\_\_\_\_.

Season	Day	Early Morn 6:00-8:00	Late Morn 8:00-12	Noon 12-1	Afternoon 1:00-5:30	Evening 5:30-10	Late Eve After 10	No Pref.
Fall	Mon-Fri							
	Sat.							
	Sun.							
Winter	Mon-Fri							
	Sat.							
	Sun.							
Spring	Mon-Fri							
	Sat.							
	Sun.							
Summer	Mon-Fri							
	Sat.							
	Sun.							

- 118-131. What kind of information would you like to see presented on T.V. Agricultural Information programs? (First, check (x) one or more of the following. Second, circle the most important three for you among those you checked.)

- ☐ 118. Extension news and activities  
☐ 119. Iowa State University news related to agriculture  
☐ 120. Grain and livestock market information  
☐ 121. Farm record keeping and Analysis  
☐ 122. Saving time and labor on the farm  
☐ 123. How-to-do farm production  
☐ 124. Foreign agricultural trends  
☐ 125. Weather reports and forecasts specifically related to farming  
☐ 126. Conservation (forests, soil, and water)  
☐ 127. Safety and fire prevention  
☐ 128. Other, please specify \_\_\_\_\_

- 132-140. What changes do you feel are needed to improve T.V. Agricultural Information Programs? (Check (x) as many changes as apply to you.)

- ☐ 132. Change in time of the day and/or day of the week  
☐ 133. More repetition of the programs so that farmers can have a choice of two different viewing times  
☐ 134. Change in subject matter to be covered  
☐ 135. More up-to-date information  
☐ 136. More detailed subject matter  
☐ 137. Better presenters (hosts)  
☐ 138. More visual work and less lecturing  
☐ 139. Bring back old programs. Please specify \_\_\_\_\_  
☐ 140. No change

142. To which age group do you belong?

- ☐ a. Under 25 years  
☐ b. 25-34 years  
☐ c. 35-44 years  
☐ d. 45-54 years  
☐ e. 55-64 years  
☐ f. 65 years and older

143. Where were you reared? (Check only one)

- ☐ a. Urban  
☐ b. Small town  
☐ c. Non-farm rural  
☐ d. Farm

144. How many years have you farmed since age 18?

\_\_\_\_\_ years

145. What is your highest level of educational attainment? (Check only one)

- \_\_\_\_\_ a. Grade school
- \_\_\_\_\_ b. Some high school
- \_\_\_\_\_ c. Graduated from high school
- \_\_\_\_\_ d. Some college work
- \_\_\_\_\_ e. Graduated from college
- \_\_\_\_\_ f. Postgraduate college

146. Do you have a job in addition to farming?

- \_\_\_\_\_ a. No (full-time farming)
- \_\_\_\_\_ b. Yes, part-time job (20 hours a week or less)
- \_\_\_\_\_ c. Yes, part-time job (21-39 hours a week)
- \_\_\_\_\_ d. Yes, part-time job (40 hours a week or more)

147. What is the tenure relationship of your land farmed? (Check only one)

- \_\_\_\_\_ a. Rent all land farmed
- \_\_\_\_\_ b. Own all land farmed
- \_\_\_\_\_ c. Own some land and rent some
- \_\_\_\_\_ d. Farm manager (neither owned nor rented land)

148. How many acres did you farm in 1979? (Check only one)

- \_\_\_\_\_ a. Less than 200 acres
- \_\_\_\_\_ b. 200-399 acres
- \_\_\_\_\_ c. 400-599 acres
- \_\_\_\_\_ d. 600-799 acres
- \_\_\_\_\_ e. 800 acres or more

149. What was your major type of farm operation in 1979? (Check only one)

- \_\_\_\_\_ a. Crops only (cash grain)
- \_\_\_\_\_ b. Livestock and/or poultry
- \_\_\_\_\_ c. Combination (crops, livestock, and poultry)

150. What percentage of your family's total net income came from farming in 1979?

- \_\_\_\_\_ a. 25% or less
- \_\_\_\_\_ b. 26 - 50%
- \_\_\_\_\_ c. 51 - 75%
- \_\_\_\_\_ d. 76 - 99%
- \_\_\_\_\_ e. 100%

Thank you for your cooperation. Please fold, tape or staple closed and return by mail.

P-185



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